

Access to Secondary Education

Pressures on Access to Secondary Education and the Choice of School Subjects

A Study in Indian Schools



**NATIONAL COUNCIL OF EDUCATIONAL RESEARCH
AND TRAINING**

February 1975
Pausa 1896

© *National Council of Educational Research and Training, 1975*

PUBLISHED AT THE PUBLICATION DEPARTMENT BY THE SECRETARY,
NATIONAL COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING,
NIE CAMPUS, SHI AUROBINDO MARG, NEW DELHI AND PRINTED
AT NEW INDIA PRINTING PRESS, LITERATURE PALACE, KHURJA.

TO THE READER

The present publication is a collection of papers presented in a Seminar held at Udaipur from 28 December, 1970 to 1 January, 1971. All these papers were written at our instance and are based on empirical research conducted at the individual author's place of work. The general design of study and the questionnaire, etc. were prepared by us in the NCERT but each investigator was allowed the option to carry out the work with modifications wherever he liked. Therefore the reader will find two sets of questionnaires in the appendix.

There are two types of studies included in the publication. One attempts to investigate who should make a choice of subjects where optionals are available; and the other, how actual choices are made. The relevance of both types of investigation is too obvious to be mentioned. We have only a vague idea on both counts. The studies either support or refute the commonly held views on the subjects.

The present bunch of studies forms a part of the research project "Pressures on Access to Secondary Education and Choice of School Subjects—A Comparative Study?" The special significance of the entire study is that we wish to record the variables affecting the choice of school subjects in India. Once the data for India are available we would like to compare our efforts with those of our neighbouring countries in Asia. Instead of depending on European or American studies for our data we propose to present an Indian point of view with entirely Asian slant in Comparative Education. This then is the purpose of the present study.

In the following papers the reader will notice that almost each paper surveys related studies in Indian Universities and tries to incorporate their data or revalidate the same wherever necessary. In a way we hope the present collection of papers would be found useful by all those who are working in this field, more particularly research scholars both in India and abroad.

R. P. SINGH

CONTENTS

FOREWORD

TO THE READER

1. Pressures on Access to Secondary Education and Choice of School Subjects	<i>R. P. Singh</i> <i>D. C. Upreti</i>	1
2. Pressures on Access to Secondary Education and Choice of School Subjects	<i>R. P. Singh</i>	30
3. Pressures on Access to Secondary Education and Choice of School Subjects	<i>Dr. (Mrs.) N. Ezekiel</i>	38
4. Pressures on Access to Secondary Education and Choice of School Subjects	<i>G. N. Mathur</i>	51
5. Pressures on the Choice of Subjects at the High School Stage	<i>D. D. Tewari</i>	60
6. The Impact of Social Stratification on the Choice of Electives at the Secondary Stage	<i>L. K. Oad</i>	77
7. Socio-Economic Pressures on the Choice of School Subjects in a Few Girl's Schools of the Tirunelveli District of Tamil Nadu	<i>Sister Lutgarde Broucke</i>	94
8. Who should Make the Vocational Choice ?	<i>K. G. Desai</i>	112

9. An Enquiry into Pressures on Choice of School Subjects	<i>M. N. Wali</i>	119
10. Pressures on Choice of Streams in English Medium Schools of Meerut	<i>S. K. Dasgupta</i>	126
11. The Choice of School Subjects in Secondary Schools	<i>S. V. Kher</i>	139
12. Pressures on the Choice of School Subjects	<i>S. P. Gupta</i>	145
APPENDICES—Questionnaire A		155
Questionnaire B		157
Our Contributors		159

PRESSURES ON ACCESS TO SECONDARY EDUCATION AND CHOICE OF SCHOOL SUBJECTS

R. P. Singh

D. C. Upreti

PART A : THEORETICAL

Introduction

The present study consists of two parts : the first part pertains to the type and extent of pressures which determine one's access to secondary education and the other constitutes the manner in which choice of subjects is made by an individual child. Studies of this type are generally made for the college students, and seldom has their area been limited to secondary school children. As will be shown in the following pages we know to some extent the number of children going to secondary schools, the distribution of urban and rural schools, the type of subject offerings available, the economic background of most of the Indian parents, etc. We are also aware that subject offerings have generally a one to one correspondence with parental occupations and their aspirations and that they also have some bearing on future occupations. A few studies have even attempted to show that there is a sort of stratification of courses of study—some higher, some lower and others somewhere in the middle range etc , leading to corresponding types of occupations. Briefly stated, we

propose to survey the existing conditions obtaining vis-a-vis pressures and the choice of subjects with particular reference to India. If we could lay our hands on the data pertaining to a few more countries viz., Nepal, Ceylon, Philippines etc. we would compare them with the Indian data and thus obtain a more coherent picture which may speak of the failures and successes both in India and abroad.

The obvious advantages of making such studies is that through them educational planners can shift the emphasis in educational provisions according to public demand, prospective national requirements etc., well ahead of time. Besides being fruitful academic endeavours they present a comprehensive view of how a system of education at a particular level reacts to social-political pressures and to what extent, if any, decision-making is directly linked with extraneous factors outside of the domain of individual choices. No doubt the freedom of choice is theoretically tenable and can be proved to exist in a democracy but we find that in life it is not absolutely correct to hold this viewpoint. A study of this type can to some extent furnish data to learn the objective reality. One should, however, remember that choosing a course of study is not tantamount to saying that one is likely to enter a corresponding profession because future developments can hardly, if ever, be controlled with such precision. Nevertheless, for a large majority of children they do suggest trends, and because by themselves these trends are scientifically verifiable and substantiable they convey a meaning to the experts which is not entirely beyond implementation.

Pressures on Access to Secondary Education

(i) *A Theoretical Framework* : The types of pressures exerted on an educational system are fairly predictable. Depending on the ladder and class of institutions the operation of these pressures can also be deciphered. For instance, whether a certain class of people would feel interested in a primary school or not can be ascertained by social and political grouping in a village. For a rich, agricultural community which is aware of the political power that it can wield a primary school may exist at its peripheral consciousness. Seldom would it take notice of the school's work. There are a few reasons for so behaving. First, a primary school does not have much job potential. Second, primary school teachers are not in any way socio-economically superior and are therefore as a group socially inconsequential. Third, the type and class of people who are involved in the running of such schools are no VIPs. Therefore, even if one took interest in them they would not bring any particular honour to one. For a

rich man primary education can be had at home. He can, therefore, by-pass a poor school. Fourth, where caste-groupings matter the caste Hindus look upon weaker sections of village community with compassion and can even donate money for running a primary school but would seldom like to go beyond showing this gesture. As primary education is getting to be universal, very little is left to local initiative and where no initiative is needed finer distinctions of caste and class can easily get mixed. In such cases power would not have an opportunity to show itself clearly.

Be that as it may, this is not true of a secondary school. While in higher education these pressures get publicity and are common knowledge to a lesser extent secondary education could also be newsworthy both in *mofussil* areas and India's vast rural populace. Involved here is a class of relatively higher educated, economically well-off people. A secondary school means to them an association with an understandably higher set of people—administrators, politicians, moneyed people etc. It also gives them a sense of achievement if they can influence the working of the school. *Education from this level onwards is an instrument of power.* Depending on the type and class of clientele it serves, the associates of such schools can possess and display finer distinctions of class and education. A private school in Delhi, in a rich locality, can carry with it a definite symbol of class which another school of same standing may not be able to show if it is located in a relatively impoverished area.

This discussion should give us an idea of *how* and *why* pressures are exerted. In the Indian context different sets of pressures will have to be thought of, for we exist on different planes of material and social advancement. The problems range from admission to *any* school to a particular (type of) school. They also include a hazy or clear vision of the future. The other extremes constitute an utter absence of means to provide any education to abundant means where the only serious problem is of choice. With such vast social disparities India's schools tend to reflect similar predicament. There are schools and schools—some with limited or nominal facilities of education and others, clustered in metropolitan towns, with unlimited resources and choices of subjects. There are schools where teachers have no freedom to teach, and on the other there are some where no one interferes for the fear of being considered 'ill-mannered' and 'unprogressive'. Understandably, India's top 1% population enjoys all the benefits of its best educational facilities and due to in-group feeling seldom permits even otherwise brilliant people to break-in. The typology of the pressures that a child faces while entering a secondary school would be like this ;

- (a) For a metropolitan, upper class, average child —
Maximum choice of school
- (b) For a metropolitan, middle class, average child—
Limited choice of school
- (c) For a metropolitan, lower class, average child—
No choice of school.

The same story is repeated in a *mofussil* town, the only difference lies in the relative ease of access and quality of education in metropolitan and mofussil areas. In fact, it would not be very incorrect to observe that the (c) category of metropolitan facility does not even exist in rural areas and smaller towns where there are *only one type of schools available for all classes*. The class distinctions are lost completely in rural areas as far as accessibility is concerned. But the quality of education differs in such cases also, for the additional inputs can be hired by a relatively wealthy parent. This quality may differ in the case of politically influential also. For an H. L. A./M. P. can manage to send his children outside the immediate environs of their original habitat and thereby create a social disequilibrium. Similarly, government employees posted in rural areas can insulate their children's education by providing additional inputs.

In fact, the question that concerns us immediately is not of whether there is a school or not, for in the absence of a school not much can be done by anyone. The basic issue is of *the choice where it is available*. If there is no choice the relative absence of it can be gauged only distantly. Even among these choices, where available, the question should be of who can avail them and who cannot. And when one avails of the facilities in preference to others — has the benefit been derived purely accidental or designed? If it is designed, what is the nature of design — is it inherent in the quality or status of the person making the choice or an offshoot of extraneous variables — some identifiable and some not. At any rate, this is precisely the subject that should interest us most.

We propose in the following few paragraphs a hypothesis which is testable both by collection of data and keen observation of social functioning

Variables* affecting the entrance to a good school for a male Hindu child. (in order of importance) :

Wealth, Power (Political / Occupational), Caste, Place of Residence, Intelligence of the Child.

* Sex is also a variable but I have left it out deliberately because by and large where no secondary schools for girls exist, parents seldom like to send them to co educational schools. Its weightage, therefore, is indeterminate.

- (a) Most Favourable $W+P+C+PR+I=\text{Good School}$
 (b) Favourable : (i) $W/P+I-C-PR=G, S$
 (a) $W+I-C-PR=G, S$
 (b) $P+I-C-PR=G, S$
 (ii) $W+P+I-C-PR=G, S$
 (c) Least Favourable : $I-C-PR-W/P=G, S$

By observing any social grouping (and assuming that there is competition for entrance to a secondary school) one could predict that if a child possessed requisite intelligence his chances of entering school would increase in direct proportion to the wealth, political/occupational power, high caste etc. that his parents possessed. A 'powerful' parent, if he so willed, could get a seat increased in the intake capacity of the school by pressurising the 'proper' people. This he could do even if the child was not promising enough to get admission. But if he possessed the same/similar intelligence as his other prospective schoolmates he would tend to benefit by the advantages his parental status conferred upon him. One can see in the above equations that the mere possession of requisite intelligence is not enough. Except by a determined will or if chance factors like catching some one's eye helped him, an intelligent child unsupported by parental status would tend to lose the battle in the long run. One could raise two objections against this hypothesis. One, the equations proposed do not have the same weightage and therefore a simple addition does not show the reality as it obtains. Second, it is not possible to substantiate them by empirical evidence. We doubt however the validity of these objections. By and large these equations should hold good in any social order and it is not improbable to support the same by empirical evidence. We know, for instance, that the mere fact a child is born in Delhi improves his chances of attending a school because the government is, relatively speaking, more lavish in providing education here than elsewhere. If he were a labourer's child the odds of being able to join a school and continue there even in Delhi would be disproportionately higher as against someone whose father had a steady, though a low-paid job. If this child of a low-paid employee were living in a colony adjacent to a rich locality the chances of his attending a school in that locality will not improve by the simple fact of his 'rich' neighbourhood. Intelligence among the children being equal, the choices that a rich parents' children have are not possible for the less fortunate. Wealth and political/occupational power are two factors which operate independently of and in conjunction with each other and thus create favours for themselves at the expense of others. Millions of scheduled and

backward people suffer today because of these two and when someone out of them acquires wealth or power he loses all interest in his own people and starts behaving like the others of the class that he has just joined. This explains why in India even now neighbourhood schools are an impossibility and why less than 50 Public Schools enjoy unparalleled prestige. In terms of occupational preferences and future prospects, children in metropolitan towns are much better placed than children elsewhere. In fact, to attempt to substantiate the obvious by empirical data would not be very wise. It may also be mentioned in passing that there are parents who, though uneducated and poor, send their children for secondary or even higher education but their own limitations tend to influence their ward's chances of continued educational success.¹

For example, Havighurst² after classifying American society into 5 classes (upper 2%, upper middle 8%, lower middle 30%, upper lower 40%, lower-lower 20%) states "the kind of education an American child gets depends very much on the social class position of families." He bases his observation on the basis of drop-outs and holds that the higher the class of parents the lower is the percentage of dropouts of their kinds. Another study³ establishes that the status of those who control schools and colleges either as board of trustees, and boards of regents are "from among persons in the upper middle class of the community." In the 60th Yearbook cited above Havighurst observes⁴, "*In general it appears that educational policies are made by people who intend to act in the interest of the society as a whole.....*" But there is very little frank and conscious espousal of the interests of any one social class by the people who have the power to make decisions in education. They think of themselves as trustees for the entire society and to serve the entire society."

Prof. Ostrom in *Education and Politics*⁵ (a chapter in 60th Yearbook cited above) describes the intimate relationship of education with politics thus :

"The complex nature of education as a set of transactions

1. See our departmental publication *The Concept and Practice of Equality of Educational Opportunity* and also for an analysis, *Conspectus*, No. 4, 1966, (*Quarterly Journal of India International Centre, New Delhi*) "Caste and Class Tensions in Indian Education" by Dr. B. S. Goel.

2. "Social Class Influences on Education" by Robert J. Havighurst, p. 121, *Sixtieth Yearbook*, Chicago : University of Chicago Press, 1961.

3. "Social Class Analysis and the Control of Public Education", by W. W. Charters, Jr., *Harvard Educational Review*, XXIII, 1953, pp. 268-83.

4. *Ibid* p. 134

5. *Ibid* p. 29

and the intimate relationship of education to the maintenance of any society and its various social institutions does not readily permit its organisation as a private good to be produced and distributed in the market. Some social agencies generally assume the responsibility for the provision of education as a social or public service. In any modern society the provision of education usually requires a substantial measure of public support. In the United States, the educational system has consequently become primarily dependent on the political system for its organisation and operation as a public service."

Prof. Musgrave says¹ "The direction of change in education is largely determined by what has happened in other major social institutions, though education in its turn can govern change elsewhere." Further, the economic pressure has its own place in the scheme of things Crowther report² (Vol. 1, Ch. 5) supports this thesis. "Of all the driving forces of change in the present day, among the strongest are those that show up in economic form, those that bear upon the amount of money and of other resources that is made available for the educational system, or upon the living the pupils in the schools are looking forward to being able to earn." We are aware that parental status has a direct bearing on child's educational choices and facilities³, it has been seen that the social class inequalities in opportunity observed in the primary schools have increased in the secondary and extend, in a way which was not evident at the time of selection, even to the highest levels of ability. "It seems that the able boys and girls from manual working class families, although encountering no obstacle at entry to the selective secondary schools, have been heavily handicapped in their later secondary school careers through relatively early leaving and poor examination results."⁴ Another study, made in the U. S. A., tends to support this thesis when it finds . "The amount of income a family has makes considerable difference in whether or not the children of the family graduate from high school and whether or not the graduates go on to college. For example, among the high school students in 1965 only 5% of those from

-
- 1 P. W. Musgrave, *Society and Education in England Since 1800*, Methuen & Company Ltd, 1968 p. 140.
 - 2 H. M. S. O., 1962, p. 45
 - 3 Kahl, Joseph A. *The American Class Structure*, New York, Rinehart & Co. 1957 (pp. 276-294) and *The Affluent Society*, Galbraith, J. K., Asia, 1964, pp. 260-271.
 - 4 J. W. Douglas, J. M. Ross & H. R. Simpson, *All Our Future — A Longitudinal Study of Secondary Education*, London, Peter Davies, 1968.

families whose income was \$15,000 or higher failed to graduate from high school, but among those whose family income was under \$4,000, 13% failed to graduate from high school."

From all evidence which we have at our disposal our theoretical framework stands validated. In the following few pages we shall have, through secondary sources, a look at the Indian educational scene as it obtains today.

(ii) *The Background* The Second All-India Educational Survey (1967) revealed that there are 26,883 secondary sections in the country. Of these, 26.81 per cent are secondary schools, 48.64 per cent are part of middle and secondary schools and 24.54 per cent are part of primary-middle-secondary schools. The percentage of secondary sections which are secondary schools is higher in rural areas than in urban areas. It was further found that on average a secondary section in the country has 232 pupils (for rural 168 and urban 329). The variations are also great e. g., in Jammu & Kashmir a secondary section has only 59 pupils and in Kerala the enrolment averages 517. The rest fall in between these two extremes. There are about 5,928 secondary sections in rural areas and 2,104 in urban areas where there are no science laboratories of any type. The number of schools having physics, chemistry, biology and home science are 7,081, 6,922, 3,240 and 1,005 respectively; and whereas one school may have all types of facilities, the other may have very little. Some may have more than one type of laboratory, the other may have even none. Another revelation was that 64.50 per cent children in the country beyond class IX are in private-aided schools, 18.77 per cent in government, 12.79 per cent in local body, and 3.93 in private unaided institutions. There are about 53.97 per cent pupils from schoolless habitation.

Out of the total of 2,77,137 teachers in secondary sections 81.68% are men and the rest women and the percentage of unqualified teachers management-wise is : 15.7 in local body schools, 15.5 in private-aided and 9.5 per cent in government schools. Here again there are a large number of variations. In rural areas alone the ownership of buildings is classified as 72.19 owned, 16.94 rented and 10.86 not owned but rent free. Again these figures are subject to a wide variety of variations.

Before we analyse these figures and findings let us have a look at what Education Commission (1964-66) has to say in this regard. They bring out two glaring difficulties in the secondary education and suggest measures for the equalization of educational opportunities. Management-wise the Commission stated that whereas the Government institutions percentaged 18.8 the corresponding figures for the local bodies were 12.0 and for privately managed 69.2. This shows that

bulk of secondary schools were controlled and run by these so-called privately managed bodies. Under this most of them were denominational/caste institutions and the rest run on individual basis. But interestingly enough the expenditure was principally borne by the government whether state or centre. In other words though run on parochial or limited interest lines they did not share the expenditure with the government to the same degree or extent as their numerical strength suggested. In para 10 10 the Commission stated :

“From the point of view of quality and efficiency, these institutions fall into two broad groups . a small group of very efficient institutions and a large group of weak and even undesirable ones. The institutions in the former have attracted—and continue to attract—competent and dedicated teachers who often form a self-perpetuating body of their own, and who remain virtually incharge of the management. Consequently, they maintain very good standards. *The latter group includes a number of voluntary organizations which are dominated by sectarian considerations that affect the recruitment of teachers as well as their atmosphere. Several of them are run, not for purposes of education or social service, but for exploitation and patronage and are like commercial undertakings.* (Italics mine)

The other problem the Education Commission details pertains to wastage and stagnation. Due mainly to economic, educational and social backwardness of the parents this problem has been sufficiently aggravated in the past two decades. This is more true for the scheduled castes and tribes where the children suffer from malnutrition and poor “education readiness”. Though an economic malady they have wide implications for education. The Commission hold that “about 65 per cent of the wastage is due to poverty”, but hope that in the coming decade its intensity will be somewhat decreased. But the other factors which are responsible both for the wastage and stagnation have not been analysed in detail and neither have their extent been sounded in depth. For instance, the Commission have not, for understandable reasons, shown the role played by local politics in this matter. But it is doubtful if politics does not play a vicious part in educational matters when its pre-election role is so well-known. For example, a special correspondent had written on 30 January 1970 (*The Hindustan Times*) in a leading article that “The Caste and Caste are going to be the presiding deities over the fortunes of this general election in Uttar Pradesh, Caste more so, as always”. Similarly, a well known Hindi weekly, *Dinman*, (21 9.1969) had reported in a despatch from Patna that the Government had not kept its promise of reserving 17.5 per cent post for the scheduled caste,

for they had in reality been allotted a mere 1.5 per cent reservation. This accusation may not be very valid but the fact that millions of scheduled caste have suffered from countless decades and lain in utter destitution and ignorance all these years does show the negative pressure they undergo while seeking admissions in schools.

Another factor viz. malnutrition, though an off-shoot of poverty, affects the intelligence of 82 million children in India today preventing them from taking any or partial benefit from education, even if offered free of cost. This revealing picture is the outcome of a survey conducted by the Indian Institute of Public Opinion and reported in the *Times of India*, 28 September 1969. On the same date the *Hindustan Times* had editorially stated :

"It (malnutrition) denies both 'equality' and 'opportunity', saps the energy, breeds 'inefficiency'...Protein-caloric malnutrition is probably India's greatest sorrow. Apart from its direct effects, it results in higher morbidities from other ailments on account of low body resistance. Other dietary deficiencies also take their toll. About a quarter of the four million cases of blindness in the country might be attributed to Vitamin A deficiency. The incidence of defective vision on this account would be greater. Goitre, rathyrism, pellagra, anaemia, beriberi and rickets are among other common deficiency or dietary diseases."

These invisible, though potent, negative pressures on the access to secondary (?) education cannot be overlooked lightly. They command our immediate attention. Particular when we talk of equalisation of educational opportunities we seldom take these negative factors into account. At least once their existence must be acknowledged openly.

(iii) *Additional information* : As part of their background study the Education Commission (1964-66) conducted a survey of the socio-economic levels of students admitted to technical, vocational and professional institutions in 1965. It did not deal separately with political and other strands in the background material, but being implied they are fairly reflected in these two. For instance, where the report says that below a certain socio-economic level children cannot normally enter a specified course of study this finding covers all those who fall below that category both in respect of caste-groups, economic layers, etc. It is common knowledge how many of those people fall within the scheduled castes, tribes or wage-earning categories. Still, for a better understanding of this phenomenon we would cite below the necessary information. The analysis of this study showed that,

(a) 87.2 per cent of the students admitted, belong to urban areas,

- (b) 88.5 per cent students admitted belong to professional type of home environment. This category includes doctors, lawyers, engineers, service etc.
- (c) Only 6.9 per cent of the available seats went to students whose parents earned less than Rs. 150/- per month.

This study further showed the advantage English medium schools had over others. For example a letter from a Director of Institute of Technology whose extract is cited below speaks for itself :

“I should mention also in this connection that I find that even though English medium schools or schools, which have English medium sections, are very few in our country, the boys from these schools do very well in our entrance examination. For example, this year as many as 168 out of 456 have come from the English medium schools passing either the Higher Secondary or Indian School Certificate or similar examinations. One reason of course is that these schools are good schools and another they draw students from higher income groups ”

Obviously this letter states two points, one, children who go to English medium schools fare better; and, two, that such children come from economically better homes. With about 15 per cent of the total gainfully employed in service section and professional class people in India it should not be difficult to arrive at this conclusion. This class of people in order to have or maintain a slight edge over others try all sorts of stratagems to provide a more meaningful and rewarding education to its children. Further, its concentration in urban areas, more particularly what are called *class one* cities and the corresponding concentration of English medium schools there, are facts which are widely acknowledged. It further shows that since a fraction of percentage from amongst the tribal or scheduled caste belong to this economically comfortable class, their exclusion from this category could be well-imagined. That is, unless some seats are reserved for this category of children they can hardly, if ever, find a place in such top class institutions leading to better emoluments later.

For our benefit let us see how this study found the situation in medical institutions in a state, say, Gujarat and have a more precise picture of the obtaining conditions there. It is merely a sample citation to substantiate the above mentioned statements.*

Out of a total of 484 students in 1965 in medical institutions (including nursing, dentistry, pharmacy, and Ayurvedic) 22.8 per cent belonged to parents with a monthly income of less than Rs. 150/-,

* For all-India statistics please see, *The Education Commission Report*, (1964-66), p. 119

36.3 per cent to between Rs. 151-300, 31.2 per cent to between Rs. 301-500 and 9.7 per cent to above Rs. 501/- per month. These statistics do not show the clusters of parents coming close to the upper limits shown here.

In an earlier year i. e., 1963-64, there were 78 reserved seats in the same set of institutions in Gujarat, the break-up for which is as follows .

(a) Scheduled Castes, Scheduled Tribes & other backward classes	15%
(b) Government of India nominees	4%
(c) Donor's nominees	12%

It may be interesting to note that in (a) category the coverage is wide and does not say whether the selected candidates came from the lowest income or social stratification. It also does not reveal urban or rural background. Further (b) and (c) categories do not specify the selection criteria and therefore this reservation by itself hardly explains anything.

At any rate these findings tend generally to uphold our earlier citations and statements which held :

- (a) Socially/economically better class children go to better schools.
- (b) These children continue education even beyond the compulsory age and are seldom victims of wastage or stagnation problem.
- (c) They live in urban areas and choose subjects which may lead to better prospects in future life. This is a relative matter and no qualification of 'better prospects' can be easily given.
- (d) Institutions where so few optionals are available which may lead to better prospects generally belong to rural areas. These areas sometimes are served by poor quality teachers, are housed in poor buildings and have seldom well-laid playgrounds or well-equipped laboratories.

And considering that 82.70 per cent of our population lives in villages the chances of the accessibility of the rural children to secondary schools could be well imagined. Further, not only in such rural areas but even in "the most advanced states of India, 98 per cent of the female children of school going age were still outside the schools" as noted by the Education Commission speaks volumes for the state our female population is in. One need hardly mention the fact that a section of our population does not have even a primary school within easy access and this means to see that his/her children attend

a school are also woefully poor. The following table with regard to scheduled caste students is self-explanatory :

TABLE I
ENROLMENT OF SCHEDULED CASTE STUDENTS AND
GENERAL STUDENTS IN 1963-64

(figures in '000)

S No	COURSES OF STUDY	GENERAL	SCHEDULED CASTES	PERCENTAGE
1	Nursery Schools	179 00	8 00	4.4*
2.	Primary Schools†	33,014 00	4,152 00	12.6
3.	Middle Schools	12,327.00	1,096.00	10.6‡
4.	High Schools	6,617 00	459.48	6.94
5.	Hr Secondary Schools	3,601.00	242.00	6.7§
6	Universities	93 00	2.36	2.5

* Excludes Jammu and Kashmir, Kerala and Rajasthan.

† Includes Basic Schools.

‡ U P figures included in Higher Secondary Schools

§ U P's High School figures included.

In a departmental study¹, in which the present author is also a contributor, Dr. B. S. Goel has blamed our political situation as principally responsible for this state of affairs. He asks pertinently whether we are ready for the introduction of measures that may eventually lead to "the equality of educational opportunity" and goes on to say, "Perhaps, as the experience of last 22 years shows, they (political parties) are not, ready for it. It is in this political situation that the reasons for inadequate policies directly on the front of 'equality of opportunity', and for changing the economic and social relationships in the society which are more fundamental to achieve the ideal, should be seen."

(iv) *Other relevant findings* : In this sub-section we propose to detail some of the major findings relevant in our context. It may be remarked at the beginning that very few studies have been made in

1. *The Concept and Practice of Equality of Opportunity in Education in India*, New Delhi, N C.E.R.T., 1970, p. 221.

this area.¹ The fact that poverty and lack of educational facilities in the neighbourhood have their own roles to play in a child's educational development is well-known. A few field studies conducted by Prof. M. S. Gore of Tata Institute bring out the socio-economic determinants of the educability of over 2000 boys and girls studying in higher secondary schools and colleges. Another study², a small pilot survey, conducted by a colleague in this department, attempted to highlight the various types of inequalities which children suffer from. As I have also collected some data, of course on different lines though for a similar purpose, it is necessary to cite first a few conclusions from the above mentioned study for our benefit. It was found that the children from the economically weaker sections even when they went to relatively poorer schools suffered from a sense of deprivation, inferiority and fear. Such children rarely expressed their aspirations and future plans. Considering that this study was conducted in three New Delhi schools and that these schools are not so protected the conditions of poor class children in schools elsewhere could not even be dreamt.

PART B : THE CHOICE OF SCHOOL SUBJECTS

Conceptual Framework

Any operational design on how the children choose subject areas at any level of study, particularly when they have a choice, must explain the following :

- (a) How many choices were available and from amongst them why did a child select one as against the other ? Does this choice have any thing to do with his (i) love for that subject i. e., the

1 ✓ (i) Desai, I. P., *High School Students of Poona* (Poona : Deccan 1967)

✓ (ii) Shah, B. V., *Gujarat Students and Social Change* (Baroda : M. S. University, 1964).

(iii) *A Socio-Economic Sample Survey of College Students in Poona City 1965-66* (Poona : Department of Mathematics and Statistics, Poona University, 1960).

(iv) *Report of the Socio-Economic Survey of University and College Students of Aligarh*. (Aligarh : Muslim University, 1957)

(v) Gokul Nathan, M. P., & Rath, S. N., "A Study of the Post Graduate Students of Gauhati University : Their Socio-Economic Background and Educational Performance", *Journal of the University of Gauhati* (Vol. XV-XVII, ARTS) 1967, pp 103-122.

✓ 2. *The Concept and Practice of Equality of Opportunity in Education in India*, NCERT, 1970.

subject chosen has some intrinsic value seen by the child ?
 (ii) Does this choice lead to a goal which is in consonance with his life-objective i. e., the subject chosen has an instrumental value ? (iii) Does it combine both the instrumental and intrinsic values ?

- (b) In which socio-economic group does a child live and has a particular choice some definite relevance to that group aspiration, say, a professional class of people wanting their children to continue in that line
- (c) For making a specific choice which frame of reference did a child use : (a) Parental occupation, (b) choice of peer groups, or, (c) personal aspirations
- (d) Depending on the type of country one lives in (Developing/Developed and also, traditional/modern scientific industrial) a child may also have to make a choice in relation to a particular political-economic philosophy of the state i. e., he may be given a choice or a choice is made for him. For instance, in U. K. this choice is made on the basis of a child's past academic performance and the I. Q. test, or in U. S. S. R. on the need of that competitive society or in Red China on entirely different basis. In other words the nature and mode of choices available and made may vary from country to country according to its political philosophy. And where secondary education is getting to be universalised such as in the U. S. A., the choices made at the secondary level are not very important. In fact, in the U. S. A. these factors would more readily be observable at the college level than at the secondary level.

Even otherwise making a choice is always a complicated affair ranging from long-range planning (combining all factors, socio-economic, I. Q. etc.) to no planning whatever. Indeed, choice is a relative term : to some it may mean complete and unfettered choice and to others very little of it. Also it is difficult to overlook one's ability in terms of maturity to make a choice. In any case, no design, however sophisticated, could give the exact reasons of why a particular choice was made and help label it category-wise.

Be that as it may, certain factors influencing choice of school subjects have been analysed on the basis of investigations made mostly in the U. S. A., U. K. and some in India.* Broadly speaking teacher's opinion, availability of subjects, intelligence of children, prestige of subjects and parental occupations were found to have a high

* See, *NIE Journal*, May-July 1970, a paper by Perin H Mehta, Swadesh Juneja & Pritam K, Rohila on the same subject.

correlation to the choices made by children. The conclusion of the analysis made by Perin H. Mehta and others reads .

"A considerable amount of literature has been published on problems of allocating secondary school students to various courses of study. Little attention has, however, been devoted to the selection of courses by the students themselves, as is evident from the small number of publications on the subject.

The research and other relevant literature in India and abroad suggests that subject choices of students at secondary school level are products of a number of interacting factors. Among factors related to school, the studies reviewed here showed positive relationships between students, choices of and preferences for certain subjects and their utility, easiness, availability in the school, interesting subject-matter and activity involved, previous achievement, and perceptions of success. The majority of the studies also suggested that teachers wield a strong influence.

Socio-economic factors were no less important influencers. Parents' advice and the social prestige of the subjects acted as strong determinants. Children of poor parents tended to take up courses which involved less expenditure. The data on the nature and extent of the influence of psychological factors, though meagre, suggest that factors like abilities, interests, etc., do play an important role. More research on the psychological, sociological and other environmental factors, and their interplay, needs to be done."

Whereas it is important that certain factors either as a cluster or unit play a vital role in the choices children make the actual ranking and weightage given to each factor would continue to vary according to *who* makes the choice and *where* it is made. These analysis are of little significance unless the factors are given rank and weightage in a particular socio-economic grouping.

A Few Findings

In the present paper we propose to offer a brief summary of work undertaken by M. Ed. students on the present topic alongside a few supporting evidences from elsewhere. In the second part we would present our own findings based on a study of four Delhi schools. In neither case we claim any finality about the observations made. At best they are indicators of the obtaining conditions and at worst they would add to the long list of studies already made.

At the Central Institute of Education (NCERT) we came

across a few M. Ed dissertations on similar related topics. Between 1959-60 half a dozen theses pertaining to our area of interest were submitted. The titles and their major findings are given below year-wise.

- (i) K. K. Gupta (1957) submitted his thesis on "An investigation into the relationship between vocational preferences and curricular choice at the higher secondary stage." The principal tool of investigation employed was questionnaire and the sample consisted of 308 pupils drawn from 4 Delhi schools from among three groups (a) General Arts and Social Sciences, (b) Natural Sciences, and (c) Commerce

Findings . Pupils in (a) come from poorer (relatively speaking) homes, (b) more well to do, and (c) most well-off.

- (ii) B. B. Agarwala (1960) made a study entitled "An investigation into the vocational preferences of the boys studying in government higher secondary schools and in schools run on Public school lines in Delhi". Once again the tool was questionnaire and sample constituted 300 students from 8 government schools and 4 schools run on Public school lines. Children averaged in govt. schools 17.5 years and in the other 16.6 years in age.

Findings . Both groups preferred applied and natural sciences and literary, artistic and agriculture subjects were least preferred, mostly because they had similar job-preferences.

- (iii) J. R. Parashar's (1965) thesis was entitled "An investigation into the vocational aspirations of science students of higher secondary schools of Delhi". The sample of 250 students was drawn from 9 schools classified as above middle class, middle class and below middle class. Tools employed were (a) Questionnaire, (b) Intelligence test, and (c) Achievement test

Findings . Main preferences — Engineering, Teaching, Business, Military, Least preferences—Agriculture, Manual Work, Literary & Law, 64.8% students had made independent choices of prospective vocations, 30% were influenced by parents and only 2% by teachers.

- (iv) A. S. Bedi (1967) took up for research "A study of interest-patterns of 10th class students in relation to their parental socio-economic status in Urban and Rural schools of Delhi State". The sample was as follows :

- (a) 50 Urban Science Students
50 Urban Arts Students
- (b) 45 Rural Science Students
55 Rural Arts Students

Tools consisted of (a) Chatterji's Non-language Preference Record Test and, (b) Kuppaswamy's Information Blank Form B for information regarding socio-economic status of parents.

Findings : (1) Interest-patterns of rural and urban children do not differ significantly. Their interest profiles overlap and the trend is similar in the areas of science, technical, craft and medicine.

(2) Interest-patterns are not affected by different socio-economic groups either.

- (v) Indira Tikku's (1968) "An investigation into factors affecting higher secondary school girls opting for science and humanities course". The sample of 385 girls was drawn from 4 higher secondary schools for girls in Delhi of which 2 were privately run and 2 government institutions. Tools used : (1) Open-ended questionnaire, (2) C. I. E. group test of intelligence, (3) Strong's vocational interest, (4) Class marks (Achievement).

Findings For Science groups : (a) 60% were influenced by the combined impact of family suggestions, personal interest and educational goal. (b) 2% by personal interest only. (c) No student was influenced by family suggestions only. Even general educational atmosphere at home influenced only 4% children.

For Arts groups : (i) No one was influenced by family suggestions alone, (ii) 42% by the combined influence of family suggestions and personal interest, (iii) Girls offering domestic science did so at the instance of their mothers (70%), (iv) Parental suggestions were based on recognition of talent in their children.

- (vi) Man Singh's dissertation "An investigation into the vocational interests of class VIII children and vocational aspirations of their parents" (1969) was based on a sample (135 children) from Delhi Public School.

Tools : (i) Group intelligence test (verbal) prepared by the CIE for 13+. (ii) Vocational Interest check list prepared by Directorate-General (iii) Achievement—on sessional marks. (iv) Correspondence with parents.

Findings . (i) In the case of brilliant and dull children there was more agreement between parents and themselves about their vocational choices. (ii) 36% of boys and 54% of girls had conformity with the parental aspirations

Few General Observations—The over-all impression that we get from these studies conforms very much to the commonly held views on this subject. Parental aspirations in conjunction with other factors decide mostly which subjects children would offer eventually. No single factor, neither family nor personal wish etc was found to be

significantly important. Indeed, some of the findings in different studies negate each other. For instance, whereas in Indra Tikku's study, family suggestion was found to be inconsequential, in Man Singh's study it does not come out to be true. In fact, it was surprising that no study mentioned that political leaders also wielded any influence on children's subject choices. Perhaps the group was too young to be aware of a political career and could not establish a direct relationship between a subject group and political success. Indeed, there may be none, still no one mentioned it. By and large these studies themselves have been conducted on a rather low key to give any positive guidance in this regard. Both from the point of view of tools and sample the results have a limited validity. The blame cannot be pinned on researchers but on the time and facilities they had at their disposal. Nevertheless it is heartening to find that India's emerging educational leadership is taking interest in such studies.

Studies Abroad

In an article entitled *Secondary School and Family Background*¹ it is reported that "people higher up the social scale were more inclined to make determined efforts to secure an academic type of secondary education for their children. On the other hand people lower down the social scale were more inclined to be apathetic in their choice of school and to have lower levels of aspiration for their children. These differences in the tendencies of parents at different social levels to choose school for different reasons held at each level of ability. This finding substantiates and revalidates the findings we have cited above. The same article (by R. Wiseman) also states that "there is very significant association between father's occupation and school stream."² In fact, this phenomenon is repeated everywhere throughout the world. For instance, Kimball Wiles³ also corroborates the same for the U. S. A. The Educational Policies Commission (1952) had also come across similar evidence.⁴

A study conducted by Douglas and others⁵ classified society into

1. Wiseman, R. A. Review of Some Recent Australian Studies, *The Australian Journal of Education*, Vol 14, No 1, March 1970.
2. Ibid.
3. *The Changing Curriculum of the American High School*. New Jersey : Prentice Hall Inc., 1963, pp. 39-64
4. *Education for All American Youth—A Further Look*
5. *All Our Future—A Longitudinal Study of Secondary Education* by J. W. B. Douglas, J. N. Ross, and H. R. Simpson. London : Peter Davies, 1968, (see pages 27, 31, 63, 85, 87, 130, 191).

Upper Middle class, Lower Middle class, Upper Manual Working class and Lower Manual class found a very close (almost one to one) relationship between parental education and their ward's education. For one belonging to Upper Middle class who had studied up to secondary or beyond had his parents also of similar educational background. This was true for all classes classified as above. They also noted "the social class inequalities in opportunities observed in the primary schools have increased in the secondary and extend, in a way, which was not evident at the time of secondary selection, even to the highest levels of ability. It seems that the able boys and girls from manual working class families, although encountering no obstacles at entry to the selective secondary schools, have been heavily handicapped in their later secondary school careers through relatively early leaving and poor examination results..... This relative lack of progress and attainment perhaps stems from low ambitions on the part of the manual working class pupils and their parents." (p. 27)

One cannot help observing that parental background plays a dominant role in the so-called free, democratic societies where inequalities are not only tolerated but perpetuated. R. M. Butcher says "No educational system can escape from the political community in which it operates. The system must reflect what the political community wants it to do. The system can set out formally to change the community only if the community includes change of this thing among its aims."¹

Despite the changes that have taken place in almost all societies the choice of subjects and the performance of children therein continues to be dominated by the socio-economic status a child's family has. There is considerable truth in the statement that early maturation of children may influence their choices of educational courses but the fact that a child is influenced by the environments he lives in and the choices his family can help him to offer and also the type of aspirations they would combinedly have can hardly be denied. Indeed, we could not overlook the type of political and economic society that a child inherits. The level of its own economic development and the opportunities it make him available would also have a direct bearing on the child's choice. We have not reached the level of being a perfect society any where in the world. Therefore, understandably the variables affecting and influencing a child's choice would vary from group to group, level to level and country to country alongside individual differences that must necessarily disturb any equations that we may be able to think of.

¹ Frederick A. Praeger, *The Learning Society*, (Introduction p. ix) New York, 1968. See also, *Social Change and the Schools* (1918-1944) by Gerald Bernbaum, London, R. K. P., 1967 (pp. 81-82)

Selection of Subjects

The study is intended to be a pilot study and as such the data is confined to only 4 schools; 2 boys and 2 girls. Amongst the boys' and girls' schools, one each has been taken from among the government and private schools. The schools have been selected from localities where students generally come from average families mostly from middle income and low-middle income groups. The four schools selected offer either of the following streams as selectives: Science, Commerce and Arts. The questionnaire was administered to students of class IX in each school with any one of the above streams as their elective subject. The total cases taken up in all the schools was 148 with approximately equal number in each stream.

The following table gives the schools and the distribution of students in each stream.

TABLE II

NAME OF THE SCHOOL	SCIENCE		COMMERCE		TOTAL
	Boys	Girls	Boys	Girls	
Govt. Girls' Hr. Secondary School No. 1, Roop Nagar	--	27	—	18	45
Govt. Boys' Hr. Secondary School, Malkaganj	9	--	27	—	36
Rohtagi A. V. Hr. Secondary School, Nai Sarak	13	—	24	—	37
Jain Girls' Hr. Secondary School, Dharampura	—	—	—	30	30
				Total	148

Methodology

The questionnaire elicits information from the students in the following areas :

(1) *Students' bio-data* : his name, address, age, religion, caste, class etc

(2) *Information about his family* : Number of brothers and sisters, education of parents and brothers/sisters, occupation of father, mother brothers and sisters

(3) Factors affecting his decision for the choice of a particular stream.

Apart from administering the questionnaire to the students, an interview was held with the Principal of the school. The interview was sought with the explicit aim of finding out -

- (a) Any specific reasons for providing the particular streams in the school.
- (b) The techniques developed by the school in selecting students for a particular stream

Findings

The questionnaires were analysed with a view to seeing the effect of the following variables on the choice of subjects : (1) Age (2) Number of brothers and sisters and the child's rank among them (3) Education of parents and brothers/sisters (4) Occupation of parents and brothers/sisters (5) Caste of the child (6) Preference for different subjects in the previous class and achievement (7) Decision about the choice of stream (8) Reason for opting for a particular stream (9) Conflict between the child's own decision and the decision taken for him.

(1) *Age* : The distribution of age in different streams is given in Table III

TABLE III
DISTRIBUTION OF STUDENTS AGE-WISE IN DIFFERENT STREAMS

RANGE	SCIENCE			COMMERCE	ARTS
	Boys	Girls	Total	Boys	Girls
13-14	8	21	29	19	15
14-15	7	5	12	15	19
15-16	5	11	6	12	10
16-17	1	—	1	4	1
Above 17	1	—	1	1	—

The majority of the students in all the three streams cluster around the age group 13 to 15 years. Compared to commerce and arts students, the students in science group belong to lower age, the maximum concentration being 13-14 years for science, and 14-16 years for commerce and arts groups. However, the data being limited it is not possible to draw any general conclusion in this regard.

(2) *Child's rank in the family*. Information was also sought regarding the child's rank in his family with respect to his/her brothers and sisters, the assumption being that the child's choice of the stream may be positively affected by his elder brother's/sister's choice. As the rank of the child would very much depend upon the number of brothers and sisters, and not much difference could be discerned among the students of different streams, no conclusions would be valid regarding the child's rank in the family and his choice of stream.

(3) *Education of parents, brothers and sisters*. Tables IV, V, VI and VII give the education of father, mother, brother and sister of the student. In case of brothers and sisters, the information is based on only those who are studying in classes higher than the student as it was thought that the choices would be affected most by the subject groups offered by the brother/sister studying in higher classes.

TABLE IV
FATHER'S EDUCATION

QUALIFICATIONS	NUMBER OF STUDENTS IN DIFFERENT STREAMS		
	Science	Commerce	Arts
Post-Graduate and above	13	1	7
Graduate	9	7	9
Matriculate or equivalent	13	19	19
Primary	7	15	9
Illiterate	2	6	3
	44	48	47

TABLE V
MOTHER'S EDUCATION

QUALIFICATIONS	NUMBER OF STUDENTS IN DIFFERENT STREAMS		
	Science	Commerce	Arts
Post-Graduate and above	1	—	—
Graduate	4	—	2
Matriculate or equivalent	18	9	9
Primary	16	21	24
Illiterate	4	18	8
	43	48	43

TABLE VI
BROTHER'S EDUCATION

QUALIFICATIONS	NUMBER OF STUDENTS IN DIFFERENT STREAMS		
	Science	Commerce	Arts
Post-Graduate and above	4	5	2
Graduate	9	8	14
Matric	13	27	9
	26	40	25

TABLE VII
SISTER'S EDUCATION

QUALIFICATIONS	NUMBER OF STUDENTS IN DIFFERENT STREAMS		
	Science	Commerce	Arts
Post-Graduate and above	3	—	—
Graduate	6	4	10
Matric	16	16	5
	25	20	15

As is clear from the Table IV, the education of the father falling in the category of graduate and post-graduate is more in case of Science students than Commerce or Arts. This may explain to some extent the higher aspirational level of students opting for science. The students offering commerce are more job-oriented than either science or arts and the level of education of the father for commerce students falls mainly in the category of matriculates or equivalent. This also explains to some extent the reason for opting for science in the desire to pursue higher education in the same subject. In the case of Arts students (all the respondents were girls) their fathers' education seemed to have played very little role in either pre-determining their desire for entering a particular job or pursuing higher study with a more or less similar group of subjects.

The education of the mother of the student may be another factor in determining the choice of electives. The students opting for science have the benefit of more educated mothers. (See Table IV).

The extent of education that the brothers/sisters have at present does not seem to effect the choice of a stream (Tables V and VI). However, the type of courses that have been offered by the brothers/sisters may have influenced the choice of a stream. But for this data is not available

(f) *Occupation of parents and brothers/sisters*. A major group of science students (31 out of 47) have been drawn from the class of white-collared occupations. Most of their fathers are in clerical jobs (22) while a few others are in technical, professional and sales jobs. Of the remaining 16 cases, 10 are in business owning shops, 2 are in industry and the remaining 3 are skilled workers in factories. The distribution of commerce students in various occupational groups of their fathers is not much different than their peers in the science stream. Out of the total 49 cases, 27 have white-collared jobs, 17 are in business and 4 are skilled workers in the factory. The difference in the cases of Arts students is noticeable as 23 out of 42 students have their fathers in business while the remaining 19 are engaged in clerical and other such jobs. On the basis of the above information only one conclusion can be drawn. Students whose fathers come from white-collared occupations (including professional and technical) are more conscious about the choices their wards make. One reason may be that they are interested in getting them good jobs. Only a negligible number of mothers of these children are employed and no valid conclusions can be drawn from this fact.

The occupation of brothers and sisters may be yet another factor affecting the choice of streams. But the distribution of occupations in respect of the three streams does not show any significant difference in the data available.

(g) *Caste*. In spite of various measures taken by the Government like reimbursing tuitional fee, scholarships, free text-books etc., the backward class and scheduled caste students are not enrolled in schools in proportion to their population. Among 121 students belonging to Hindu religion, only 7 come from backward communities (Science-3, Commerce-3 and Arts-1). The population composition of the localities does not deviate much from the average. Bearing in mind the limitation that the proportionate composition of other castes in the total population was not determined it is found that the majority of the higher castes viz., Brahmins, Khatriyas, Vaish and Kayasthas go in for either Science or Commerce streams. However, the proportionate number of students is more in Arts for Vaish than the other three castes. For a better picture of caste determining the choice of electives a study in depth is required.

(6) *Preference for Subjects and Achievement* : The best liked subject in class VIII and the maximum marks obtained in a particular subject in the promotion examination of class VIII have been shown in Table VIII.

TABLE VIII
PREFERENCE FOR THE SUBJECT AND MAXIMUM MARKS
OBTAINED IN CLASS VIII

SUBJECTS	SCIENCE GROUP		COMMERCE GROUP		ARTS GROUP	
	MF	MM	MF	MM	MF	MM
English	11	10	12	6	11	4
Hindi	2	1	16	6	17	4
Sanskrit	1	7	4	9	—	17
Science	22	5	2	4	2	1
Mathematics	9	12	13	4	13	10
Home Science	—	1	—	—	2	6
Social Studies	—	1	—	—	2	3
Drawing	3	10	4	11	—	1
Craft	—	1	—	—	—	1
Music	1	—	—	—	4	1
	49	48	51	40	48	48

MF = Most Favourable Subject

MM = Maximum Marks

On the basis of information given in Table VIII, the following conclusions may be drawn .

- (1) The bias in favour of English still seems to be strong among all the three optional group students. Approximately 25% of the students gave English as their best preferred subject in class VIII.
- (2) Students in 'Commerce' and 'Arts' group have a strong preference for Hindi also (approximately 33%). But science group students do not show any positive liking for Hindi as they do for English
- (3) The preference for Science (slightly less than 50%) by students offering Science as optional is quite understandable and taken along with Mathematics, about two-thirds of the students show consistency in preference.
- (4) Commerce as a subject is not introduced till class VIII. As such the choice of Mathematics by about 25% students offering

Commerce is quite in line. However, a sizeable number of Commerce students (approximately 60%) have preference for language subjects.

- (5) The 'Arts' group students also show strong preferences for language subjects (English and Hindi, more than 60%) But more than 25% have shown preference for Mathematics also.
- (6) In general, it may be said that subjects like 'Social Studies', 'Drawing', 'Craft', 'Music' and 'Sanskrit' are not liked by students. This is somewhat baffling as these subjects have an intrinsic creative and artistic value and could be made very interesting to the students of the age-group under study. The study points out two possibilities .
 - (i) The whole system being examination-biased, most of the time and attention of the students is taken away by languages and mathematics, or,
 - (ii) We have not yet been able to explore the cultural, aesthetic and creative potential of these subjects. However, this aspect of the problem needs further investigation.
- (7) The achievement of the students in class VIII indicates that science students have scored more in English, Mathematics and Drawing. Students offering Commerce have shown better results in Drawing and Sanskrit and Arts students in Sanskrit and Mathematics.

Decisions about the Choice of Stream and Reasons for opting for a Stream

For science and arts groups the choice of stream was in most cases the student's own (science 44 out of 49 and arts 47 out of 48). Other factors like father's wish may have re-inforced the decision. In the case of Commerce students, apart from student's own choice (approximately 50%) two other factors come to light viz., the preference shown by father (approximately 25%) and the choice of the same stream by their brothers and sisters.

This when combined with the reasons uppermost in the minds of the students would make it more understandable. It is observed that 19 out of 51 students offering commerce have taken the stream, with an eye on better job opportunities. In case of science students their choice of the stream is more influenced by their desire to continue with the same course in their college education. For Arts students also, though further education is one of the main factors, 20 out of 48 students have no idea whatever for their choice of the stream. (See Table IX)

TABLE IX
REASONS FOR OPTING FOR A STREAM

REASONS	S T R E A M S			
	S C I E N C E		C O M M E R C E	
	Boys	Girls	Boys	Girls
Continue in College	15	19	13	18
Easy to pass	—	—	4	9
Better job opportunities	5	1	19	1
No idea	2	7	15	20
Total	22	27	51	48

Conflict in Decision

The conflict in one's own decision about the selection of stream has to be taken along with the responses regarding :

- (a) whose decision was most instrumental in the selection of a stream.
- (b) if the option is still left open, would the student be willing to change the stream ?

The analysis of all the three responses reveal that the students of the science group show the maximum consistency. However, in all the three groups the majority of the students feel that the choice of stream was not in conflict with their own decision about it and in most cases they would not like to change the streams they are already in.

Information Based on Interviews with the Principals

Only three out of four Principals could be interviewed. (2 Government and 1 Private). The information was sought on the following points :

- (1) Reasons for providing the streams.
- (2) Bases of selection of students for different streams.
- (3) Availability of guidance services in the school.
- (4) Any consultation with parents regarding the choice of stream.

(1) *Reasons for providing the streams* : In all the three cases the school authorities have been influenced by the demand of the locality for the provision of the particular streams. In the case of boy's schools the demand has been for opening commerce streams and both the

schools have provided for it. There has been a marked decline in students going in for science stream (Physics, Chemistry & Mathematics combination) due to the plight of unemployed engineers. The general demand is for Biology group. As it was not possible to provide this group to the students, the majority have opted for commerce. The existing facilities for science subjects are under utilised in both the schools. There is a general feeling among the parents that under the existing circumstances commerce at the secondary stage would bring their children better opening. However, this trend shows the lack of prospective planning either on the part of society or that of the individual. In the case of girl students, the most popular stream is still Arts though a few have gone in for science where facilities are available. In science stream also, the preference of the girls is for Biology group with the specific motive for going in for medical profession.

(2) *Bases of Selection of Students for different Streams* : In case of the girls' school where science and arts streams are provided, the achievement of girls in English and Mathematics are taken into account if they opt for science. Their overall achievement is also considered. Within the Arts stream, those offering Music are judged on the basis of their aptitude.

In case of one boys' school (government), where science and commerce are provided as streams, the students are selected for science on their earlier achievement in English and Mathematics. However, this criteria is not much applicable as the demand for science has decreased in recent years.

In the other boys' schools (private-aided) the option of science or commerce is entirely left to the student's choice and earlier achievement is not taken into account at all.

(3) *Availability of Guidance Services* : In all the three schools guidance services are available and the counsellors have occasional consultations with the teachers and students regarding their selection of stream in class IX.

(4) *Consultation with Parents* : All the three schools have adopted the practice of calling parents to schools and taking them into confidence regarding the choice of streams by their children. This is more so in case of students who cannot be given the stream of their choice.

PRESSURES ON ACCESS TO SECONDARY EDUCATION AND CHOICE OF SCHOOL SUBJECTS

R. P. Singh

Pressures on Access

It may appear quite justifiable to observe that the first part of the subject suffers from verbal infelicity and that there is a rather incongruous juxtaposition between the first and second parts. What is meant by pressures on access ? If this be the underlying meaning, will it not be better from the point of view of clarity to term it as pressure on secondary schools, or demand for secondary education or admission pressure on secondary schools etc ? However, whatever be the intended meaning of this phrase, I will interpret it in terms of availability of places in secondary school classes for pupils desiring and striving for admissions in them. In other words, the question to be considered here is whether there are more pupils seeking admission in secondary schools or there are more seats therein than there are intending pupils. In short, the problem to be considered here is to study the interplay of demand and supply of education at secondary school level. But even after this semantic assumption it is not clear whether the problem is to be considered in respect of the lower secondary (junior schools) or higher secondary institutions. This only points out to the very real need for clarifying and amplifying titles and problems when it is planned and desired to have them discussed and investigated in a scientific manner at a time when educational jargon is developing fast and sometimes assuming grotesque forms.

A very obvious difficulty which besets the study of this subject of 'pressure on access' is the absence of definite and reliable data. Few schools in the country will be found to maintain records of the number of pupils applying for admissions in various classes, and of the number that is rejected, although it would be easy to find the number admitted in every class year after year. And the problem of pressure is more related to the number applying than the number being admitted. Even if the statistics relating to rejected numbers are available, these will not provide any clue to the core of the problem, for rejection of pupils can result not only from lack of seats (places) in a class but also from inadequate academic equipment and intellectual status of pupils from the viewpoint of admission. Thus it would be seen that this phenomenon of 'pressure' would appear to arise only in situations where a larger number of pupils, deserving admission on educational grounds, apply for a smaller number of places available for admissions in school classes, thereby creating competition and leading to the elimination of a significant or sizable number among them. It is these eliminated candidates who will feel frustrated for they have been deprived of admissions which they have deserved academically but which have been denied to them owing to lack of places or seats in classes. It is these pupils who exemplify 'pressure on access to secondary education' by their examples and situation and provide the incidence of this 'pressure' by their numbers. Evidently, it is this imbalance, as I said earlier, between greater demand and lesser supply of positions in schools which really constitutes the problem of 'pressure'. But the reverse is not true, for if the number of places in school classes exceeds the number of pupils striving to fill them up, instead of the phenomenon of 'pressure', there will be wastage of educational resources and then there will be absolutely no question of any 'pressure' at all.

Besides some of the difficulties already pointed out above in the study of the problem of 'pressure', another serious difficulty is in regard to determining the distribution of this pressure. It would be certainly wrong to hypothesise that this 'pressure' is uniformly present in all areas, including rural and urban and in all sorts of schools, good, bad and indifferent. It is common knowledge that the admission pressure is certainly less in rural areas than in urban areas owing to a number of economic and social factors. The cultural pressure for education is not so great in rural areas as in cities, and the difficulty of having to walk or travel over long distances to reach schools and the economic poverty of parents all tend to create apathy towards education. Also, many of the unskilled jobs which people do in villages to earn a living do not require any education on the part of

workers. But the educational pressure, on the other hand, is greater in cities, partly from cultural and economic factors and partly owing to the phenomenal growth of their population resulting from industrialization and migrations from rural areas in search of better opportunities. Similarly, another axiomatic truth is that rush for admission in better schools is greater than in schools without educational reputation and is not at all equalled by pupils' rejection of poor schools. In fact, in some of the public and even other reputed schools in the country pupils have to queue up for long years before admission is assured or in sight. And in such schools even the system of getting priority through advance registration breaks down because for one place there may be a dozen deserving pupils competing between them.

If this be the case, the question arises as to what should be the sample of such an enquiry to study the incidence of 'pressure'. Shall the sample be a single school, providing scope for what is euphemistically called depth study, or several schools in a locality or the schools within the limits of a municipality or district, or even a State. It is manifest that the data obtained from even the depth study of a single school or of several schools in a single locality may be inadequate and misleading and not at all conform to the reality of the situation so far as 'pressure' is concerned. Therefore, one essential requirement of such a study is to select a fairly large sample of schools to ensure the validity of conclusions.

I have so far considered some of the difficulties in respect of the semantics and the methodological issues to be kept in view in the study of the problem of 'pressure'. Now I will briefly consider another cognate problem of pressure. Pressure on admission appears to be a fly in the educational ointment, simultaneously obnoxious and undesirable, for it is feared that unless this pressure is reduced or controlled it would jeopardise the cause of good education if there is a larger number of pupils in a class than otherwise sanctioned or fixed by the high priests of educational administration. In other words, it is always thought that class size and teaching efficiency are inversely related. It would be an interesting exercise for anybody to compare the sanctioned class strengths at all levels of educational ladder in various States of India and to make a comparative study of these figures in their numerous dimensions. I am choosing only two States for this purpose, one northern and other southern. In Uttar Pradesh a single class section in VIII, IX, and X has a standardised strength of 35, 40, and 40 respectively. But in Mysore the fixed numbers for the same classes are uniformly 55, although in schools, both Government and non-government, this number is not adhered to and can rise to 80 or

even more. But some good private schools try to restrict the numbers with a view to produce good percentages of passes at public examinations. And it may appear surprising that quite unlike the Government High Schools in Uttar Pradesh the Government High Schools in Mysore State produce the worst results at the public examination, known as the S. S. L. C.

The question of 'pressure on access' cannot be considered in isolation from many factors one of which is the optimum size of a class, in determining which convenience, expediency, and tradition etc. have played a greater part than research, which follows other factors and not precede them. In the beginning schools were started with classes as small units admitting smaller number of pupils, as and when they came, and then developing steadily and responding to the needs of the community around them by larger intake of pupils, simultaneously augmenting their resources and personnel until they started feeling that they had reached saturation point in terms of their available accommodation, resources, and teaching staff, all of which being harnessed into producing satisfactory educational results. This empirical process of development goes on until the saturation point is reached and the phenomenon of the pressure of access to schools is experienced by all those who are vitally involved in the educational process. And yet even today there has not been enough research to determine international norms for an optimum class size at different stages of education. Practices in this respect in different countries vary as they certainly very much vary in India as shown in case of Uttar Pradesh and Mysore States.

What then should be the optimum size of a class and what should be the criteria to determine this? The answer to the second part of the question appears to provide an answer to its first part also. Broadly speaking, the main criterion in this matter should be the good education of every pupil in school. But this is merely begging the question. Good education, particularly in a democracy, should be directed to help every growing child in school to develop to his full stature with a unique personality of his own in terms of his own intelligence, special abilities and aptitudes, interests and personality traits so that he attains complete fulfilment and his activities are personally satisfying and socially desirable and he voluntarily accepts and undertakes private and public responsibilities. In other words, it is the criterion of complete educational growth in terms of socialized individuality of every pupil which should be the main determinant of class size. Evidently, this single criterion is comprehensive enough to embody in itself many subordinate criteria. Questions of floor space, teaching aids, material resources, teaching personnel and a host of such matters

can be considered in the context of this broad educational goal. The feasibility of imparting instruction from the viewpoint of teacher's convenience and also educational administrator's point of view about the size of the class can be considered in the light of this supreme consideration of good education.

Tradition has been in favour of smaller classes for younger children and larger ones for older pupils. In fact, the educational ladder widens up in this respect as it moves up to reach its apex with the result that in colleges and universities the class size remains indeterminate and never stabilizes at a fixed number. The nature of the curricular subjects also determines class size, for science subjects perforce require smaller classes in view of the experimental work in them. From the viewpoint of teacher's convenience and the feasibility of imparting instruction and dealing with children and their problems effectively the maximum size of a school class should not exceed 40. Even from the pupil's point of view in terms of his proper social growth a larger-sized class will not be conducive. Researches, both statistical and experimental, on the problem of fixing an optimum class size without adversely affecting pupils' progress and promotion seem to confirm the common-sense point of view. The studies of both types of researches indicate that class sizes can be increased to 45 pupils in primary schools and 40 in the high school without diminishing instructional efficiency. Some of these researches have been by Stevenson¹, Corman², Boyer³, Breed and McCarthy⁴ and they seem to arrive separately at the above mentioned conclusions. But these research findings are in respect of American Schools, early in the second decade of the present century. Visitors to American schools will quite often find two teachers instead of one in a class and they can also get some clerical assistance

In view of the population explosion in the country and in view of the growing consciousness of the importance of education, coupled with wider dispersion of educational opportunities and the double shift system in several big high schools there appears to be a prima facie evidence of increase in pressure on secondary schools today. It would be also possible to support by statistics released by State and

-
1. Stevenson, P. R., Relation of Size of Class to School Efficiency, Education Research Bulletin, No. 10, 1922, University of Illinois.
 2. Corman, O. P., "Size of Classes and School Progress," *Psychological Clinic*, Vol. III, 206-212, 1909.
 3. Boyer, P. A., "Class size and School Progress," *Psychological Clinic* Vol. VIII, 82-90, 1914.
 4. Breed and G. D. McCarthy, "Size of Class and Efficiency of Teaching," *School and Society*, Vol. IV, 965-971, 1916.

Union Governments an upward trend in educational investments and enrolments. But schools too have multiplied in number and they have been fairly able to absorb the growing numbers of pupils. In rural areas many high schools do not have their classes full, although a few of them may be found overflowing. And although the number of schools as a whole has increased, it cannot be said that the number of pupils in high schools has also increased. In fact, one may argue that the first flush of rush of pupils during the early years of the post-independence era is showing signs of decline and exhaustion now and the enrolment in schools is stabilizing with a downward trend. Some figures of enrolment are presented below. The first table is about the Government Maharaja's Higher Secondary School, Mysore, where nearly all students who offer themselves for admission are accepted as a matter of policy and none refused admission.

Enrolment and admission figures in Government Maharaja's Hr. Secondary School, Mysore where the total enrolment during the last six years has fluctuated between 900 and 1000 pupils are given below,

YEARS	TOTAL NUMBER OF PUPILS ADMITTED
1965-66	485
1966-67	685
1967-68	423
1968-69	523
1969-70	347
1970-71	341

(a) The school has four classes from Std. VIII to Std. XI.

(b) All pupils who apply for admission are granted it. Nearly 60% of the total admissions are in Std. VIII.

And yet the pressure of admission during 1969-70 and 1970-71 has diminished substantially.

Total admission figures during the last ten years for three Government Higher & Primary Schools in Mysore City with Standards I—VII are given on p. 36.

YEAR	GOVT. H.R. PRI- MARY SCHOOLS MANDIPET	GOVT. KANNADA BOYS' SCHOOL MANDIMOITALLA	GOVT. H.R. PRI- MARY SCHOOL N. M. K. A. CHAMARAJA DOURIE ROAD	TOTAL
1960-61	219	174	63	456
1961-62	234	198	87	509
1962-63	202	177	30	409
1963-64	217	158	48	423
1964-65	205	151	34	390
1965-66	169	161	34	360
1966-67	190	141	62	393
1967-68	194	168	71	433
1968-69	164	101	105	370
1969-70	198	122	84	404

The total figures of admissions in the four schools, one Higher Secondary, and three Higher Primary, in the city of Mysore do not show any evidence of pressure, except some sporadic increase or decrease in some years. Yet, the sample is too small to warrant any conclusions.

Choice of Subjects

I have at the outset pointed out the not too logical and warrantable relation of this part of the subject with its first part, except perhaps in the assumption that the larger the number of pupils in secondary schools the greater will be the need for a diversified curriculum to suit individual differences in the mental abilities and aptitudes of a larger number of pupils. Obviously choice of subjects is a logical corollary from this valid assumption. Adolescence is the period par excellence for the manifestation of special abilities and aptitudes, and therefore, varied courses of studies and pupils' choices of them are now accepted facts of secondary education. But the most surprising thing is that much publicised Education Commission Report (1962-64) has ignored this great psychological truth either by ignorance or perversion and has mainly prescribed a general course of education which will be compulsory for all high school pupils. If the Commission's recommendation in this respect is going to be accepted and implemented for which there is so much ground to believe, then the question of any choice of subjects will not arise at all. It is indeed intriguing to find that while secondary schools in the U. S. A. provide for over 275 optional subjects, called variables, and while secondary

education in the U. K. is tripartite in its structure to suit three main types of mind, i. e. the academic, the scientific and the practical, the latest proposal in India as recommended by the Education Commission to make secondary education absolutely general is to be completely blind to psychological facts about educational needs of secondary school pupils. While primary education is highly generalised in character and provides the same common courses of study for all children the world over without any distinction of race or sex, secondary education carries forward the elements of generality but adds to it elements of specificity also to suit the needs of individually differing adolescents. Therefore, it is a blend of the general and the particular and the choice of subjects certainly arises in relation to the study of the 'particular' in curriculum. Therefore, the Kothari Commission's recommendation in regard to this matter is surely uninformed and unfortunate and calls for its rejection.

There are good many aspects of the problem of choice of subjects which may call for comments but it is not intended to dwell upon them. First and foremost, there is the philosophical question whether choice, freedom, and will are reality or illusion. Then there is the question of parental determinism and pedagogic pressure on pupil's choice of subject. Thirdly, there is the question of curriculum's diversified amplitude to permit wide choice of subjects, for in Indian schools there is a real restriction and lack of variety in this respect. Then there is the vocational and prestigious value of some subjects attracting a larger number of students. This leads to the problem of underlying motivational factors in the curricular choice of pupils. Lastly, what role has scientific guidance played to help pupils in this matter? These are some of the aspects which can be studied in relation to the subject.

PRESSURES ON ACCESS TO SECONDARY EDUCATION AND CHOICE OF SCHOOL SUBJECTS

N. Ezekiel

One of the basic issues in today's debate about schools is the proper relation between the academic disciplines, or the organized fields of scholarly knowledge and the curriculum of the primary and secondary schools. Two generations ago this question was little debated, for it was generally assumed that the schools should present each "major discipline" as a separate subject. The school subject is generally organized according to the structure of the academic field and includes as much of the content of "the parent discipline" as could be taught to pupils in the schools.

Although three factors—the learner's capacity, society's demands on the schools and the organized fields of knowledge—influence the school curriculum directly or indirectly, the emphasis is on the third factor—academic disciplines. It is assumed that society's needs would be met by transmitting as much as possible of the organized available knowledge.

With the rise in systematic study of human development, psychology of learning and educational sociology in the twentieth century, however, the emphasis is shifted in planning the school curriculum. The nature of the pupil, his learning processes and the explicitly stated social goals for the schools become the major bases for the selection of content to be taught.

Generally a curriculum is designed to meet not only the changing needs of society but also the newer concepts of the needs of the learner. Hence it consists of well organized pertinent materials selected from "the reservoirs"—the disciplines—which are systematically organized bodies of knowledge. Indeed, twentieth century schools in India and in other parts of the world now present a broader range of content than any to which young people have previously been exposed.

In the past decade, there have been new pressures to teach the disciplines as disciplines in the schools, to start a number of subjects at an earlier grade level or to stress "the structures of the separate subjects". In part these pressures arise from the longer period of preparation needed today for a scientist, doctor or specialist in any field and from the consequent demand that young people today enter college prepared for more advanced studies.

It is perhaps relevant to analyse and identify the nature of such pressures which have a direct bearing on access to secondary education and choice of school subjects, and also the various economic, social, sociological and other factors that influence the education of the second rank of intelligentsia of a country. Hence an attempt is made in this paper to highlight the roles of the above variables as actually operating in the field of secondary education where learning experiences are worthwhile in themselves for the pupils who engage in them.

No doubt it is interesting to note that Jerome S. Bruner in his book, *The Process of Education*, says "any subject can be taught effectively in some intellectually honest form to any child at any stage of development". So long as the way the child views his world is understood and respected. Are we educating adolescents for vocations? Does the curriculum at the secondary level cater to the aspiration of the young people and help them to increase the standards of living in the future? Well, this is a highly complicated problem. This leads to other relevant questions—what is the basis of the choice of subjects of pupils at secondary level? Who makes this choice? How much choice does our curriculum offer? Is the adolescent capable of making choice? Are their parents the best judges in this matter? Should the society do it on the bases of its needs and planning?

These questions are highly debatable and there is very little consensus of opinion on this score.

History shows that, except under conditions of duress brought about by external forces, schools have developed gradually in different parts of the world in response to a variety of different conditions.

They are a product of the society and they also influence the future of the society.

Obviously, education in the Indian constitution is *prima facie* a state subject. It has given some Directives and made some provisions and recommendations so as to re-evaluate the role of education in the programme of national development, to bring about changes in the present system of education, to enable education to play its proper role, to prepare a proper programme and implement the same with determination. The magnitude and urgency of the task have increased and have acquired a new meaning and importance since independence.

The school, as a rule, is governed by the State Department of Education or a private management body—religious or denominational, the local community (selected representatives on the governing body). In some cases the running of the schools is under the Zilla Parishad. Then again the Education Department controls the curricula, the courses and system of examinations, etc. Hence all these exert formal pressure on the access to secondary education and choice of school subjects.

Industry also plays an important role in education. The formal education in an industrial society "takes place in modern schools", introduces "a deep threat to the moral authority of the teacher" which is based on superiority of experience and culture.

Even political ideologies determine to a considerable extent the human relationships which makes a school a going concern. There are three important points of contact between the education system and political interaction and they are (1) activities of government, (2) activities of political parties and (3) activities of individual politician.

Just as the political system affects education, education affects the political system and prepares the young more or less for their political role in adult life. Politics and education are inexorably intertwined with each requiring the assistance of the other. The continued existence of the polity depends on the success of education in preparing the individual citizen to live up to his potentialities so he is able to play as useful a role as possible in society, while formal education depends upon politics to determine not only what programmes, courses, subjects will be supported financially but also the level at which they will be maintained.

Among issues which have considerable political potential and have also great academic relevance are "the issues of the medium of instruction at various levels of education, the language of exam (competitive), admission of students to professional institutions".

At present, the Indian society is faced with a variety of new challenges in the field of education. This is due to the "commitment of the nation to a new system of values and social structure" Today, India aspires for the culture and social structure and this is represented by modernism and industrial society. In fact, there are trends in modern Indian education which indicate a 'strain towards consistency' in regard to the needs of society. Utilitarian reasons (scientific skills and job opportunities) are responsible for giving importance to education.

Nor it is surprising to notice how the community, the family and the agencies of social welfare "desert" many of their responsibilities and "fob" off these upon the schools and teachers so that schools have frequently to function as "everything" Besides, various community agencies exploit the talents, time and energies of school children for non-school activities, resulting in serious "attrition" of the available time for study and free play

It is now widely recognized that the cult of success is defined in terms of occupational position and income These are seen for the better off, as best achieved in the educational process, and through quick exit to "the factories" for the worse off. This leads to built-in false values in teacher-pupil relationships and to "a strengthening and hardening of class arteries."

The family also is a very important social agency. The achievement and failure of pupils is associated with the home environment. The child's relationship with his teachers and his peers is also affected by the amount of freedom or authority he enjoys at home. The problem of dropout is greatly influenced by the family A child's access to secondary schools or continuation of his education mostly depends upon the socio-economic status of the family. Sometimes parents concentrate their attention on the education of their sons only, or the young people have to share family responsibilities due to an unexpected turn of events and hence have "to cut short their education". Education in turn also demands "redefinition of the roles" of the family members.

Decidedly, collegiate influence in the work of the schools is most direct and most easily recognized. The main channel by which colleges can and do determine in some measure the curriculum of secondary schools is "official institutional". In the category of "official institutional" influence are admissions examinations, required or recommended. Within the past few years or so, however, and significantly because of widespread changes in college attitudes and procedures, there has been a noticeable change in point of view of high schoolers. Hence this leads to a probe into their choice of subjects

It is easy to see that the low standard of achievement in some subjects in secondary schools can, to a great extent, be attributed to the unfavourable attitudes which the children have acquired towards their school subjects. It is a matter of common experience that children and even adults tend to like anything interesting and lose interest in an object, the usefulness of which they do not perceive. Again, the usefulness of a subject is a very important factor in determining the attitude of children towards the subject.

However, it must not be forgotten that choice of subjects exercised by pupils or parents does affect the decisions taken at administrative level regarding provision of facilities. Besides, "the manner" in which pupils respond to the forms of teaching and learning sets up "a client influenced element" in the decision-making process. One of the features of the educational institution in India is the weightage on tradition and hence the choice of pupils and parents with regard to selection of school subjects is influenced by "established images" and tradition.

Now, educational choices are bound up with occupational choices and vice versa, but more than that, both are bound up with an individuals' choice of a way of life. Both educational and occupational experiences help to determine the total life experience, the social group, the mode of thinking and the value judgements. Living is "all a piece" and one choice affects other choices.

Then again, there is no date or time at which one can expect all young people to make their decisions. Maturity is a relative thing, growth is continuous and determined by the individual's own rate. It is no more possible for each pupil at a time when he has to select subjects (in secondary schools) to know whether or not he will go to college. Economic changes that may enter each child's life are not alone to be considered but the child's own growth process.

Very often, an individual finds those things interesting which are a means of securing an end which is set before him. Thus, if a youth is sufficiently keen upon securing a particular job which requires as a first qualification the S. S. C. Examination Certificate, the subjects that are essential will have a certain amount of interest attached to them. Such spread or association of interest seems to vary according to individual capacity.

Another powerful instinct of self-assertion leads to an "enjoyment of success" in any activity, and consequently, pupils tend to be interested in subjects in which they can see definite results gained. The utility interest becomes much more important at ages 12 and 13 as the prospects of leaving school and earning a living come into view.

In an interesting study, "The Relative Popularity of Subjects in

Grammar Schools", Mr R. A. Pritchard, has concluded that the boys and girls long for self-activity, take delight in proving things, find great pleasure in discussion and argument, feel the need for variety, want everything, as far as possible, linked up with the life of every day, and above all, look for a human interest whenever possible and likewise select the school subjects

It should be stressed that even special interests depend, in many cases, also upon general ability. For the young child upto 9 or 10 years indeed, progress in all types of school work is largely dependent on his general ability. So far, then, as his interest depends in his achievement, it will depend chiefly on his general ability. Even the teachers greatly affect the choice of subjects by the pupils.

The personality of the teacher is everything in education. How wrong, at times, teachers may be in their judgements of the pupils' interests in school subjects. They usually tend to think that a pupil is most interested in what he does best. Research has proved that some children are bound to do very well in any subject, relatively to the other pupils, though the subject may be disliked by them

Hence, interests reveal the nature of many types of ability and various aspects of personality as manifested in social relationship. One seeks to recognize interests in order to make instruction a meaningful experience for the learner.

Thus it is clear that secondary school pupils are approaching the time when they will be representative of the total group of young people. As more students enter college from a greater range of economic levels, many colleges and universities are becoming more selective in their clientele, thus discouraging or eliminating students from the lower level economic homes and channeling them into certain types of secondary schools. Hence this also affects the pupils' choice of school subjects.

The realization that social and economic factors play an important part in the recruitment, admission, education, and persistence of the young people is strengthened.

In effect, many people from lower status background have little choice in the type of continuing education available to them and become concentrated in schools from which they finally withdraw at an early date. Building numerous institutions has not had the effect of changing general distribution of pupils by economic means or ability. The varieties of financial assistance made available since the past few years have probably done most to further the search for talent initiated during those years while simultaneously aiding high ability pupils to enrol in large numbers to the most selective institutions which provide for their needs.

In addition to economic background, experiences in the home and in a certain social strata are closely related to, if not determinants of, some of the choices pupils exhibit. The social life and values in the home are closely related to the attitudes, values and personality traits of the pupils. Some researchers¹ have found that significant variations between pupils from urban backgrounds and those from rural backgrounds in abilities, skills, and personality traits assessed at the time of "entrance" while other researchers² suggested that socio-economic status of pupils' families was not so salient a determinant of certain attitudes as were ethnic and religious factors and they proposed that the background complex of pupils could be better understood as being composed of all three factors.

The most descriptive single characteristic of the socio-economic background of pupils is provided by father's occupation and qualifications of the members of the family respectively. Children who come from homes enjoying a high educational as well as professional standard do not, as a rule acquire unfavourable attitude to any school subject as such. Homes exercise a beneficial influence in the children's attitudes towards their school subjects. Thus, it can be said that income and class considerations influence the admission of children to various educational and professional institutions.

In their paper "Sociology and Educational Research," M. S. Gore and Suman Chitnis stress that parent's occupations determine pupil's rating of occupations and the principle that works in the choice of schools also acts in the choice of occupations for their children. Sometimes parents are unwilling "to accept change" which will create disparity between their status and that of their children and so they do not encourage their children "to take occupations outside their own class". As a result, this affects the access of pupils to secondary schools and their choice of school subjects as well.

Review of Related Research : (Published and Unpublished).

1. Selig, Hannah. "Socio-economic Status and Children's Interests", *Childhood Education*, January 1970 (Published).

Determining how to engage, arouse and channel the pupil's interest has long occupied the attention of classroom teachers, research workers and educational philosophers, but a definite answer has yet to be found. Studies have attempted to pinpoint a child's interest in various school subjects as it may help to determine the factors which influence pupil's choice of subjects.

-
1. C. Spearman, J. J. Shakespeare and others.
 2. C. Burt, C. W. Valentine, R. A. Pritchard & others.

In this study the investigator has studied the following . (1) differences in expressed interests among pupils in two socio-economic groups and (2) evidence that differences in expressed interests between socio-economic groups are related to the school curriculum.

The tool of research was a group method of interviewing. The main difference between the two socio-economic groups in expressed interests appears to be in direct reference to their mode of living and to their experience background.

The educational implications of this study is that the classroom teacher in any area must be concerned with the clarity of the concepts gained by the children. Where childrens' experiential background is limited, the teacher needs to be ingenious, inventive, creative, alert and zealous in bringing his classes clear concepts of the subject at hand. Letting the children talk freely will serve further in detecting inaccuracies in the child's conception of the subject matter.

Besides, this study also infers that, for children of wide individual experience background, the school can provide primarily, strength in skill and extend experience areas of the child's life. For the children with limited experience background, the school programme must be designed as an enlargement of the child's background and a widening of his horizons, in addition to providing him with basic skills.

Unpublished Material

- ✓1 Pavri, K. D (Smt.) *Selection of Children for Secondary Schools in India*, M. Ed. Dissertation, Bombay University, 1951.

In this study, the investigator feels that secondary education is non-selective and is based on economic factors and not on intellectual ability. She has concluded that children living in urban and semi-urban areas have a greater chance of going to secondary schools than those living in rural areas.

The methodology adopted here is not purely descriptive. Test of intelligence was administered to children of Std. IV. Factual and statistical data was analysed and discussed.

She has presented her study in a series of three chapters. In the first, she has discussed the different methods of selecting children for secondary schools which are used in Great Britain. The second chapter is devoted to the results of test of intelligence and lastly, suggestions regarding the methods of selecting children suitable for secondary schools in India are given.

Methods of selection suitable to India are as follows ;

- (1) Written examinations

- (2) Aptitude Tests
- (3) Tests of Intelligence
- (4) Progress Records
- (5) Teacher's estimate
- (6) Administrative arrangements

Besides, she is very adamant regarding the age of selection—it should be 11 years.

- ✓2' Dalal, K. M. (K.M.) *A Study of the Factors Influencing the Choice of Subjects at the S.S.C. Level*. M. Ed. Dissertation, Bombay University, 1959.

The subjects of experimentation were 798 boys and girls in the S.S. class between the age range 14 to 17 years. The investigator has categorised the pupils in two classes—upper middle class and the lower middle class. This was determined by the family income and other luxuries enjoyed at home. Most of her subjects fall in the upper middle class that is, 60.7% of the boys and 68.4% of the girls.

The questionnaire was made use of wherein she could get the actual choices of the S. S. C. candidates. The S. S. C. syllabus was given and discussed in detail.

The factors arrived at after the analysis of the data are as follows :

- (1) The S.S.C. Board provided a wide range of subjects and introduced diversification of courses. This is a right step in the reorientation of secondary education to meet the needs of the changing patterns of society.
- (2) Major factors in selection of school subjects is interest and liking—rules laid down by the S.S.C. Board.
- (3) (a) compulsion by the parents,
(b) indirect compulsion by the school—non-availability of certain subjects in certain schools.

The career of the pupils is determined more by the school than by the pupil's liking or his economic and social conditions.

- (4) Economic—father cannot give education to all his children, therefore they will select subjects haphazardly just for securing the S. S. C. certificate.
- (5) Social Prejudices : Society still retains prejudices for certain trades and professions which act as handicap for choosing one's career according to one's interest and ability.
- (6) Girls deprived of the social advantage—parents oppose as they believe that secondary education is more than enough for girls.
- (7) Psychological factor—intelligence and power of learning—child of below average I.Q. does not study after secondary stage.

- (8) Ability of a pupil to study certain subjects
- (9) Family background—a richly cultured family background may provide opportunities for the development of the abilities needed in certain occupations or family tradition may also drive children toward certain professions.
- (10) Attraction of jobs that are open to these young people in that particular line
- (11) Availability of jobs in certain lines.
- (12) Aesthetic factor—can choose Fine Arts.

The data also revealed that majority of pupils (92.7%) selected the school subjects on their own initiative, that is, voluntary selection. The selection perforce or under compulsion was 4.8% and selection on guidance or initiative from others was 2.5%—almost negligible.

- ✓3. Rajadhyaksha, M.R. (Km) *To Investigate How far Parent's Views Regarding the Future Careers of their Children are in Keeping with their Scholastic Abilities and Pupil's Choice of Careers*. M. Ed. Dissertation, Bombay University, 1959.

The researcher, in this study, has tackled parents' views regarding their children's future careers, scholastic abilities of these children and finally children's own choice of careers. This material is presented in a series of eight chapters.

Her subjects consisted of 510 boys and 320 girls studying in stds X-XI in High Schools in Bombay. The data was collected by issuing questionnaire to these pupils and separate questionnaire to their parents. Only 447 parents responded.

The concluding remarks of the investigation are that parents' choices are "routine" and "narrow-minded"—not judicious at all. She feels that the parents are in dire need of vocational guidance as there is also a clash between "the realism of maturity" of parents and "the idealism of youth".

- ✓4. Kelkar, M. N., *The Relative Popularity of School Subjects at Different School Stages in Secondary Schools*. M. Ed. Dissertation, Bombay University, 1960.

The subjects involved in the study were drawn from urban and rural secondary schools in three districts of Maharashtra—Thana, Kolaba and Bombay. The Questionnaire was administered to 700 boys and girls from standards IX-X. About 40 boys and 50 girls were interviewed.

The findings of the study were .

- (1) There is a great deal of environmental effect on boys and girls. In urban areas, boys and girls are in constant touch with new things, new fashions, new ideas and are aware of scientific inventions,

(2) The effect of parents' notions, views and thoughts on boys and girls is very deep. This may be due to heredity. The "likes" and "dislikes" of father and mother are transferred to their children.

(3) Likes and dislikes of children depend on home conditions or background.

(4) Some children have no choice of their own.

The reasons offered by boys and girls for favourite subjects were .

(a) utility

(b) easy to understand

(c) attainment of good ranks, success in examination, incentives required to have interest.

(d) interest results in activity.

(e) good teachers—teachers' personality, method, knowledge, heredity and environmental factors.

✓ 5. Martins, Z. M. (Km.), *A Study of the Attitude of Secondary School Children towards History as a School Subject in the City of Bombay*. M. Ed. Dissertation, Bombay University, 1967.

This study has revealed that children can think and do think along right lines and they can judge the method of presentation of the subject. Besides she has found inter-relationship between leisure-time activities of children and their interests in their school subjects.

Both factors—heredity and environment—are important as the child's innate aptitudes are decided, to some extent, by heredity. Secondly, the occupation of the head of the family is the deciding factor of the atmosphere in the home.

✓ 6. Sayced, A. A. (Km.), *An Investigation of the Social, Economic, Cultural and Home Conditions affecting the Education of Boys and Girls in Nahasopara Area* (Taluka Bassein, District Thana), M. Ed. Dissertation, Bombay University, 1968

The investigator has presented the material in five chapters. She has devoted her attention to history and background of Nahasopara Area together with its social, economic and home conditions and education.

The data is collected by means of questionnaire and interviewing some of her subjects.

Her findings were that economic conditions of a child is the main pivot in the school life and the family conditions of a child influence greatly the ability of a child to receive education as home conditions result from economic conditions. Absence of interest in the studies of children due to illiteracy or want of sufficient education on the part of guardians was noticed.

7. Chacko, Mathew, *Investigation into Subject Preferences of 500*

Junior and 500 Senior Pupils of Secondary Schools in Greater Bombay
M. Ed. Dissertation, University of Bombay, 1966.

This dissertation is loaned to some other university.

In short, there is a need for reorientation of secondary education. The radical reconstruction of secondary schools should emphasize training for democratic citizenship. It should lay the foundation of scientific, philosophical, literary, technological and the other kind of intellectual career. It should definitely supply personnel for trade, industry, teaching profession. The growing tempo of industrialization, generated by the second and third five-year plans will require more and more trained personnel.

BIBLIOGRAPHY

A. Books

1. Davis, Robert A. *Learning in the Schools*, California, Wardsworth Publishing Company, Inc., 1966.
2. Deyoung, *American Education*, Fourth Edition, New York, McGraw-Hill Book Company, Inc., 1960.
- ✓3 Gore, M. C. (Ed.), I. P. Desai and Suman Chitnis *Papers in the Sociology of Education in India*, New Delhi, N. C. E. R. T., 1967.
4. King, Edmund J. *Education and Social Change*, Oxford, Pergamon Press Ltd., 1966.
5. Lucio, William H. (Ed.), *Readings in American Education*, Chicago, Scott, Foresman & Co., 1963.
6. Rath, James and J. D. Grambs. *Society and Education-Readings*, N. J., Prentice-Hall, Inc., 1965.
7. Valentine, C. W. *Psychology and its Bearing on Education*, Great Britain. Methuen and Company Ltd., 1965.

B. Periodicals

1. Bennur, C. S. "Socio-Economic Status and Academic Achievement of Students in High Schools: Their Relationship," *The Progress of Education*, XL (April, 1965), 122-126.
2. Selig, Hannah, "Socio-economic Status and Children's Interests," *Childhood Education*, (January, 1970), 225-226.

C. Unpublished Materials

- ✓1. Dalal, K. M. (Km) "A Study of the Factors Influencing the Choice of Subjects at the S. S. C. Level". Unpublished M. Ed. Dissertation, University of Bombay, 1959.

- ✓ 2. Kelkar, M. N. "The Relative Popularity of School Subjects at Different School Stages in Secondary Schools", Unpublished M. Ed. Dissertation, University of Bombay, 1960.
- ✓ 3. Martins, Z. M. (Km.) "A Study of the Attitudes of Secondary School Children towards History as a School Subject in the City of Bombay" Unpublished M. Ed. Dissertation, University of Bombay, 1967.
- ✓ 4. Pavri, K. D. (Smt.) "Selection of Children for Secondary Schools in India." Unpublished M. Ed. Dissertation, University of Bombay, 1951.
- ✓ 5. Rajadhyaksha, M. K. (Km.) "To Investigate How far Parents' Views regarding the Future Careers of their Children are in Keeping with their Scholastic Abilities and Pupils' Choice of Careers," Unpublished M. Ed. Dissertation, University of Bombay, 1959.
- ✓ 6. Sayeed, A. A. (Km.) "An Investigation of the Social, Economic, Cultural and Home Conditions affecting the Education of Boys and Girls in Naliasopara Area (Taluka Basscin, District Thana)", Unpublished M. Ed. Dissertation, University of Bombay, 1968.

PRESSURES ON ACCESS TO SECONDARY EDUCATION AND THE CHOICE OF SCHOOL SUBJECTS

G. N Mathur

In the present study the researcher elected to find out how the choices of school subjects should be made. The purpose of the study was to explore this rather undiscovered area.

The investigator prepared and administered a questionnaire in 7 schools of Alwar out of whom one was a Central School. Most of these schools are run by the Board of Secondary Education. A common questionnaire was administered to students, parents and teachers. However, in the case of students some additional information was also sought to be elicited. And this pertained to :

- (1) Parents' economic status
- (2) Optionals offered
- (3) Education of the parents
- (4) Choices of subjects which they wish to offer after higher secondary
- (5) Choice of vocation if they wish to leave their studies after higher secondary education.

This information was sought to be corroborated by parents through the questionnaire. In addition, the teachers were requested to fill in data about their own economic status, educational background also.

In all there were 5 boys' schools, 1 girls' school and 1 coeducational school. Out of the 801 questionnaires distributed (See Annexure)

only 649 were received back duly filled in. All the tables are presented at the end of this paper. Subjectwise strength of the students is shown in Table II. For the sake of convenience the economic status of the family was divided into the following categories :

- (1) Rs. 2500/- per annum,
- (2) Rs. 2501 to Rs. 4000 per annum,
- (3) Rs. 4000 to Rs. 6000 per annum, and
- (4) Rs. 6000 and above.

The educational background was also classified into 7 categories ranging from illiterates to M. A /M. Ed. etc.

Findings

In response to the question no. 1, the answers about the decision for future vocation were as follows :

	No of responses
1. Student, Guardian and Teachers should decide	384
2. Student alone should decide	193
3. In favour of Guardians and Teachers	50
4. In favour of Guardians alone	24
5. Teachers alone should make the decision	8

The data have been analysed in Table VI.

Further the extent to which the guardians and teachers should make decisions as per item nos. 6 to 14 of the questionnaire have been analysed in Table VII.

The students were asked to give definite reply whether they should themselves take decisions for their future or receive guidance from their guardians and teachers. In response to it as per Table VIII, 535 students have favoured the need of guidance from guardians and teachers while only 84 supported the self decision to be quite enough for their future career.

TABLE I
SCHOOL-WISE DISTRIBUTION OF STUDENTS, TEACHERS AND PARENTS

SL No	NAME OF THE SCHOOL	STUDENTS	TEACHERS	PARENTS
1	2	3	4	5
1.	Govt Sec School, Ajabpura	17	7	4
2.	S. M D Girls' Hr Secondary School, Alwar	114	—	—
3	Y Hr Secondary School, Alwar	240	12	—
4.	Central School, Alwar	17	1	—
5	Secondary School, Narainpur	72	11	4
6	Hr Secondary School, Behror	60	30	7
7.	Hr, Secondary School, Thanagazi	35	15	3
Total		555	76	18

TABLE II
SUBJECT-WISE STRENGTH

SL No	NAME OF THE SCHOOL	ARTS	SCIENCE	COMMERCE
1	2	3	4	5
1.	Sec. School, Ajabpura	17	—	—
2.	Y. Hr, Secondary School, Alwar	—	140	100
3.	S. M. D. Girls' Hr. Secondary School, Alwar	69	45	—
4.	Central School, Alwar	2	15	—
5.	Sec. School, Narainpur	37	35	—
6.	Hr. Sec. School, Behror	30	30	—
7.	Hr. Secondary School, Thanagazi	35	—	—
Total		190	265	100
Total (Arts+Science+Commerce)		555		
% in Arts		34		
% in Science		48		
% in Commerce		18		

TABLE III
INCOME OF PARENTS
(RANGE)

SL. NO	NAME OF THE SCHOOL	RS. 2500 PER ANNUM	RS. 4000 PER ANNUM	RS. 6000 PER ANNUM	ABOVE RS. 6000 PER ANNUM
1	2	3	4	5	6
1.	Secondary School, Ajabpura	17	—	—	—
2.	Y. H., Secondary School, Alwar	160	67	14	3
3.	S.M.D. Girls' Hr Secondary School, Alwar	44	31	24	15
4	Central School, Alwar	6	2	7	2
5	Secondary School, Narainpur	58	8	3	3
6	Hr. Secondary School, Behror	37	20	2	1
7.	Hr. Secondary School, Thanagazi	31	2	5	
Total		353	130	55	24
Income in each Range					
of percentage of					
total no of Parents		63%	23%	10%	4%

TABLE IV
EDUCATION OF PARENTS

SL No	NAME OF THE SCHOOL	PARENTS	ILLITERATE		LITERATE		VIII PASS		MATRIC PASS		GRADUATE		POST-GRADUATE	
			No	%	No	%	No	%	No	%	No.	%	No	%
1.	Sec. School, Ajabpura	Father	12	8.2	2	7.7	1	1.5	6	6	5	6.6	2	2.9
		Mother	16	12.5	1	7	—	—	—	—	—	—	—	—
2.	Y. Hr. Sec. School, Alwar	Father	62	42.5	64	46.6	38	55.8	15	15	18	24	17	25
		Mother	158	45.1	54	40.0	19	38.7	9	45	—	—	—	—
3.	S. M. D. Girls' Hr. Sec. School, Alwar	Father	1	0.7	1	0.7	20	29.4	58	58	20	26.6	15	22
		Mother	36	10.2	53	39.2	26	53	—	—	—	—	—	—
4.	Central School, Alwar	Father	—	—	2	1.4	—	—	7	7	3	4	5	7.5
		Mother	1	0.7	2	1.4	3	6.1	10	50	—	—	1	100
5.	Sec School, Naraunpur	Father	33	22.6	24	10.2	6	8.9	1	1	6	8	3	4.4
		Mother	64	18.2	5	3.7	1	2.0	1	5	1	100	—	—
6.	Hr Sec. School, Behror	Father	28	17.9	25	10.9	1	1.5	10	10	15	20	18	22
		Mother	47	17.6	13	9.6	—	—	—	—	—	—	—	—
7.	Hr. Sec School, Thanagazi	Father	12	8.2	19	13.8	2	3	3	3	8	10.6	8	11.7
		Mother	28	13.4	7	5.1	—	—	—	—	—	—	—	—
Total			146		137		68		100		75		68	
		Mother	350		135		49		20		1		1	

TABLE V
CHOICE BY STUDENT FOR FUTURE STUDY

S No.	NAME OF THE SCHOOL	ARTS		SCIENCE		COMMERCE		WANTS EMPLOYMENT	
		No.	%	No.	%	No.	%	No.	%
1	2	3		4		5		6	
1	Sec School, Ajabpura	5	3.5	—	—	—	—	12	1.4
2.	Y. Hr. Sec. School, Alwar	—	—	113	48.9	77	100	50	5.8
3	S M. D. Girls' Hr. Sec School, Alwar	66	45.2	53	22.1	—	—	2	2.3
4	Central School, Alwar	1	.08	12	5	—	—	4	4.0
5	Secondary School, Narainpur	27	18.3	31	12.9	—	—	14	16.3
6.	Hr. Sec. School, Behror	30	20.4	30	12.5	—	—	—	—
7.	Hr. Sec. School, Thanagazi	18	12.2	—	—	—	—	17	20
Total :		147		239		77		85	
Percentage in each Stream		27%		43%		14%		16%	

TABLE VI
DECISION REGARDING CHOICE OF CAREER

S. No.	NAME OF THE SCHOOL	GUARDIAN		TEACHERS		STUDENT		GUARDIAN & TEACHERS		GUARDIAN, TEACHER & STUDENT	
		No.	%	No.	%	No.	%	No.	%	No.	%
1	2	3		4		5		6		7	
1.	Sec. School, Ajabpura	—	—	—	—	4	2	2	4	22	5.7
2.	Y Hr Sec. School, Alwar	10	41.3	3	37.5	104	53.8	25	50	103	26.8
3.	S. M. D. Girls' Hr. Sec. School, Alwar	5	20.8	3	37.5	14	7.2	10	20	103	26.8
4	Central School, Alwar	1	4.1	—	—	2	1	—	—	16	4.7
5	Sec School, Narainpur	2	8.2	1	12.5	20	10.4	2	4	57	11.5
6	Hr. Sec School, Bheror	4	16.4	1	12.5	23	11.9	7	14	62	16.4
7	Hr Sec. School, Thanagazi	2	8.2	—	—	26	13.9	4	8	21	5.9
Total		24		8		193		50		384	
Percentage of each response to total		4%		1%		30%		7%		58%	

TABLE VIII
RESPONSE TO ITEMS 15, 16 IN QUESTION 3

S. No	NAME OF SCHOOL	ITEMS			
		15		16	
		No	%	No	%
1	Sec. School, Ajabpura	10	0·1	3	3·8
2.	Y Hr Sec. School, Alwar	205	38·3	25	29·8
3.	S M.D. Girls' Hr. Sec School, Alwar	106	19·8	4	47·6
4.	Central School, Alwar	13	2·4	1	1·1
5.	Sec. School, Narainpur	61	11·3	26	30·9
6.	Hr Sec. School, Behror	83	15·5	7	51·4
7.	Hr. Sec. School, Thanagazi	42	7·8	2	2·2
Total		535		84	
Percentage to Total		91%		9%	

TABLE IX
RESPONSE TO ITEMS 17 TO 30 (QUESTION 4) IN THE QUESTIONNAIRE

S No	NAME OF THE SCHOOL	ITEMS									
		17		18		19		20		21	
		No.	%	No.	%	No.	%	No.	%	No.	%
1.	Sec. School, Ajabpura	19	15	4	3	20	10	2	3	2	1
2.	Y. Hr. Sec. School, Alwar	34	26.98	32	2.4	61	30	23	46.7	40	39.21
3.	S. M D Girls' Hr. Sec. School, Alwar	47	37.30	51	38.34	33	16	6	9.66	16	15.60
4	Central School, Alwar	4	3.3	3	2.28	6	3	3	4.83	1	.09
5.	Sec. School, Narainpur	4	3.3	7	5.26	20	10	10	16.10	15	14.7
6.	Hr. Sec. School, Behror	12	9.52	28	51.53	35	17	11	17.71	24	23.53
7.	Hr. Sec. School, Thanagazi	6	4.76	8	6.01	24	12	1	1.61	5	4.9
TOTAL		126		133		199		62		102	

PRESSURES ON THE CHOICE OF SUBJECTS AT THE HIGH SCHOOL STAGE

D. D. Tiwari

Introduction

In order to have a proper perspective of the study in hand, it is necessary to have a general idea of the structure and organisation of education in U. P., and the curricular offerings that are generally available to the students. Secondary education in Uttar Pradesh consists of three important stages—the junior high school stage (11-14 age group, grades IX and X), and the intermediate stage (16-18 age group, grades XI and XII). This structure varies from others in the sense that we have got twelve-year schooling, while in many states grade XII forms a part of the university course known as the pre-university course.

At the junior high school stage, one of the Basic Crafts and Allied Arts, Hindi, English, Third Language, Mathematics, Social Studies, General Science and Physical Education are the compulsory subjects and only one of the following subjects is optional or elective—

1. One of the classical languages
2. Music
3. Commerce
4. Art

At the high school stage, Hindi and Mathematics with an alternative of Home Science for girls only are compulsory and the rest of the number of three are optional or elective. At the intermediate stage

also, Hindi is compulsory while the rest to the number of four are optional. It is thus clear that at each stage the student is confronted with the problem of choice of subjects for study. This problem of choice of subjects, suited to the tastes and abilities of the student, is quite a difficult one. The number of optionals at the high school stage is about sixty-four and that at the intermediate stage is about eighty. This makes the problem of choice still more complicated for the student as well as his guardian. It may also be mentioned that the high school as well as the intermediate syllabus is divided into groups of subjects known as Literary, Scientific, Commerce, Constructive, Aesthetic and Agriculture.

It is a matter of common experience that a good number of students fall a victim to wrong choice of subjects and, as a result, face frustration and failure in life. This is not only a colossal national wastage, but it creates a situation in which truancy and delinquency get into full play and tend to disintegrate our social structure. The problem is, therefore, to investigate the various causes that pressurise students to select one group or the other of subjects for study in schools and colleges. This will help us a great deal in matters of educational and vocational guidance for the students, which in turn, will help to prepare better citizens out of the younger lot.

Method of Investigation

A questionnaire containing eleven causes supposed to play an effective role in the choice of one or more optionals was prepared for the purpose. Enough space in the questionnaire was provided to the student to mention some other causes for his choice of optionals, if the same were not included in the causes mentioned therein. On account of the limited time at our disposal, the investigation was confined to the students of class IX only.

Four institutions of Allahabad city covering all the groups of studies at the high school level—Literary, Scientific, Commerce, Constructive, Aesthetic and Agriculture were selected. In order to give a wider range to the findings, out of the four institutions selected, one was that of the girls. It is also worth noting that the said questionnaire was not sent to the students to be filled in by them at random. Rather some Professors and Research Fellows of the Institute visited the selected institutions to explain to the students the objectives of the investigation. In studies of this kind, where young students are involved, it is necessary to clarify personally several points that remain vague otherwise. Thus, every effort was made to get an accurate response on various points,

Collection of Data

The following number of students belonging to different groups of studies were involved in the investigation :

TABLE I
STUDENTS INVOLVED IN THE INVESTIGATION

INSTITUTION	GROUP	NO. OF STUDENTS	TOTAL
1. Govt. Inter College, Allahabad	Literary	32	165
	Scientific	80	
	Constructive	53	
2. Govt. Girls' Inter College, Allahabad	Literary	40	80
	Aesthetic	40	
3. Allahabad Inter College, Allahabad	Commerce	50	50
4. Kulbhaskar Inter College, Allahabad	Literary	20	35
	Agriculture	15	
			330

Thus, the investigation was carried out on 330 students of which 92 belonged to Literary Group, 80 to Scientific Group, 50 to Commerce Group, 53 to Constructive Group, 40 to Aesthetic Group and 15 to the Agriculture Group. It is to be noted here that the students belonging to Aesthetic Group are all girls.

The subject-wise break-up of the students is given below:

TABLE II
SUBJECT-WISE BREAK-UP OF STUDENTS

GROUP	OPTIONAL SUBJECTS	NO. OF STUDENTS
Literary	Economics	31
	History	29
	English	302
	Art	30
	Civics	24
	Persian	4
	Geography	12
	Music (Vocal)	17
	Music (Instrumental)	16

GROUP	OPTIONAL SUBJECTS	NO. OF STUDENTS
Scientific	Sanskrit	53
	Mathematics (Girls)	10
	Science (Physics & Chemistry)	129
	Biology	83
	Industrial Chemistry	37
Commerce	Ceramics	2
	Commerce	50
Constructive	Spinning and Weaving	11
	Wood Craft	2
	Book Craft	10
Aesthetic	Painting	3
	Sculpture	21
	Dancing	6
	Technical Drawing	13
Agriculture	Agriculture and General Science	11

Statistical Analysis

All the eleven reasons in the questionnaire supposed to be the basis of selection of one or more optionals by the students, are noted below

1. Advice of the guardian.
2. Advice of the teacher
3. Advice of friends.
4. Attraction of better employment
5. Special interest in the subject.
6. Good marks in the subject obtained in class VIII.
7. Lack of provision of the subject of interest in school.
8. Non-availability of the optional subject of interest or its being unpermissible for a particular group.
9. Influence of the teacher's good teaching.
10. Possibility of getting high marks in a subject.
11. Psychological guidance available.
12. Other reasons, if any

Detailed analysis of the answers of the students has been given in Table III.

TABLE III
CLASSIFICATION OF ANSWERS GIVEN BY STUDENTS

OPTIONAL SUBJECTS	No. OF STUDENTS IN THE SUBJECT	No. of STUDENTS GIVING VARIOUS CAUSES FOR SELECTION OF OPTIONALS											
		1	2	3	4	5	6	7	8	9	10	11	12
A. Economics	31	37	3	1	16	26	13	7	7	20	15	0	nil
History	29	7	3	2	20	28	21	4	4	14	17	5	nil
English	302	165	18	22	191	285	194	43	37	99	144	58	nil
Art	30	10	3	3	11	28	18	5	5	12	14	2	nil
Civics	24	12	0	3	17	24	18	5	2	15	11	1	nil
Persian	4	3	0	0	3	4	3	0	0	1	3	0	nil
Geography	12	7	1	1	10	11	8	3	2	2	9	0	nil
Music (V)	17	6	1	3	8	12	8	5	2	6	10	0	nil
Music (I)	16	5	0	2	8	11	7	2	1	7	10	0	nil
Sanskrit	53	34	1	3	35	49	41	7	8	17	44	8	nil
Mathematics (for girls)	10	7	0	0	5	10	7	1	0	7	7	0	nil
B. Science	129	3	4	1	33	74	32	1	0	16	9	29	nil
Biology	83	26	2	3	29	63	22	2	0	12	8	26	nil
Industrial Chemistry	37	26	6	6	25	35	27	3	6	15	11	12	nil
Ceramics	2	0	0	0	1	2	10	0	0	1	0	0	nil

TABLE III (Contd.)

	50	26	2	2	27	48	2	7	20	12	42	0	nil
C. Commerce													
D. Spinning & Weaving	11	10	0	3	7	11	10	10	2	8	9	0	nil
Wood Craft	2	1	0	0	1	1	1	0	0	1	1	0	nil
Book Craft	10	3	0	1	3	3	1	0	0	1	1	0	nil
E. Painting	3	0	0	1	3	3	1	1	1	1	2	0	nil
Sculpture	21	9	3	2	15	19	13	11	14	18	17	1	nil
Dancing	6	2	0	3	6	6	1	4	3	5	5	0	nil
Technical Drawing	13	6	2	1	7	8	10	5	3	5	7	0	nil
F. Agriculture &													
General Science	11	8	2	2	8	11	10	4	0	8	5	0	nil
Mean		17	2	2.8	20.4	31.6	20	5.3	4.8	12	16	6.6	nil

Interpretation of the Data

In all, twenty-four main optionals for the high school classes have been covered by the investigation. From the mean of the frequencies of the various reasons given for the option of each subject, it is evident that the first and foremost reason for the selection of optionals, is no. 5, i. e., special interest in the subject. The second and third reasons in order of importance of frequencies are no. 4 (attraction of better employment) and no. 6 (good marks obtained in the subject at the Junior High School Examination). The advice of the guardians and prospects of better division due to the subject bringing high marks are also important factors in the selection of optionals. Good teaching of the subject by the teacher also plays a vital role in tempting the students to offer the subject concerned as an optional. It is significant that the advice of the teachers and friends does not appear to exert any appreciable influence on the students in this respect. It is interesting to mention that neither the guardians nor the students attach any importance to psychological guidance, though it is quite important. Perhaps, it is so because proper guidance is not available to them or even when available, better employment opportunities exert greater pressure and nullify psychological advice. It does not seem to play a significant role in actual practice as is obvious from the data available. It is also clear that the space provided in the questionnaire for giving extra reasons, if any, has been left blank by all the students.

Educational Significance

From what has been given in the preceding pages, it is clear that so far as the pressures in the selection of optionals by the students at the high school stage are concerned, three of them stand foremost, and they are—interest in the subject, prospects of better employment and good achievement in the subjects at the Junior High School Examination. But two of the most predominant causes, viz., interest and good achievement in the subject on the one hand and 50% failures at the High School Examination on the other, suggest that there is something wrong at the high school stage. If the selection of these optionals is based on the interests and abilities of students after the junior high school stage as inferred from the study, it is not understandable why the results are so poor. It, therefore, seems pertinent to point out the tragic fact that the results may be poor because of lack of good teaching and good teachers and naturally the interest and abilities of students are not fully utilised. It is common knowledge that in a large number of cases, teachers who are not qualified to teach the subject

are teaching it and, even those, who may be technically qualified, do not have the desired depth of knowledge and efficiency in teaching. This aspect actually needs a separate study altogether.

It is the third reason, i. e., prospects of better employment that seems to have the upper hand in the selection of optionals. For example, 302 out of 330 students have offered English as an optional, in spite of knowing well that it is a difficult subject and is having the greatest incidence of failure at the High School Examination (vide Government Central Pedagogical Institute, Allahabad Publication No. 47—An Investigation into the Causes of High Incidence of Failure at the High School Examination of the U. P. Board). It is, otherwise, beyond one's grasp how 285 out of 302 students can have such a soft corner for the subject in which they generally fail or secure very poor marks resulting in the loss of good divisions. It can be easily concluded, therefore, that the students offer English not so much because of their interest and abilities in the subject, but because of brighter prospects of employment. This is also true of other subjects as indicated in the following table.

TABLE IV
SUBJECTS OFFERED BECAUSE OF SPECIAL INTEREST,
GOOD ACHIEVEMENT AND BETTER
EMPLOYMENT OPPORTUNITIES

SUBJECT	TOTAL NO. OFFERING THE SUBJECT	NO. OF STUDENTS OFFERING THE SUBJECT BECAUSE OF		
		SPECIAL INTEREST	GOOD ACHIEVEMENT	EMPLOYMENT OPPORTUNITIES
English	302	285	194	191
Science	129	74	32	33
Biology	83	63	22	29
Industrial Chemistry	37	35	27	25
Commerce	50	48	2	27
History	29	28	21	20
Civics	24	24	18	17

It is well known that Science, Biology, History, Civics, etc. also have the greater incidence of failure at the High School Examination. In spite of this, the students offer these subjects, not so much because of special interest and good achievement at the Junior High School Examination, but more due to the subjects offering better prospects of employment.

In order to confirm whether the three reasons, viz., interest in the subject, attraction for employment and good achievement in the

subject at the Junior High School Examination really stand in this order of importance for the selection of electives, the students concerned were interviewed. One of the items of inquiry was to get the response of each student to indicate the order of importance which they attached to the reasons while making their choice. The responses of students in this connection are given in the following table

TABLE V
NO. OF STUDENTS GIVING FIRST PREFERENCE TO VARIOUS
REASONS IN THE SELECTION OF OPTIONALS

SUBJECT	TOTAL NO OFFERING THE SUBJECT	INTEREST IN THE SUBJECT	ATTRACTION FOR EMPLOYMENT	GOOD ACHIEVE- MENT AT THE J. H. S. EXAMINATION
English	302	170	78	54
Science	129	86	26	17
Biology	83	53	25	5
Industrial Chemistry	37	25	8	4
Commerce	50	30	18	2
History	29	18	7	4
Civics	24	18	4	2

Chi-square test was applied to each subject of the table. The value of Chi-square in each case is well above the required minimum value even at .01 level to reject the Null Hypothesis. (See Table below)

TABLE VI
CHI-SQUARE TEST RESULTS

SUBJECT	VALUE OF THE CHI-SQUARE OBTAINED	MINIMUM REQUIRED VALUE OF CHI-SQUARE FOR DF=2 AT .01 LEVEL
English	76.38	9.21
Science	65.40	2.21
Biology	46.45	9.21
Industrial Chemistry	18.60	9.21
Commerce	21.50	9.21
History	10.80	9.21
Civics	19.00	9.21

Here our Null Hypothesis is that each of the three causes is equally important. It means that we assume that the difference in observed frequencies is only due to sampling error and expected frequencies are equal in each case. But from the value of the chi-square

obtained, we are in a position to reject the Null Hypothesis even at 1% level. Thus it is clear that even if the sampling were extensive, the variation in the observed frequencies would have been of the same nature. On the basis of this test we can affirm that interest in the subject, attraction for employment, and good achievement in the subject at the Junior High School Examination are the first, second and third reasons in order of importance. Table V also proves our foregone hypothesis that interest in the subject is more due to prospects of better opportunities for employment than the achievement in the subject at the Junior High School Examination. Hence, it can be easily inferred that the students offer these subjects, unmindful of their achievement at the Junior High School Examination. This connection is equally supported by the poor results and high incidence of failure in these subjects at the High School Examination.

As for the other three important causes of selection of optionals, i.e., guardian's advice, possibility of getting high marks and teacher's good teaching, it can be safely asserted that the advice of the guardian, too, is based on the prospects of employment. Crowding in the Biology classes these days in order to become doctors and be employed somewhere supports the inference drawn. On the other hand, Agriculture, Physics, Chemistry, Mathematics and Commerce are getting more and more unpopular among the students and the guardians day by day for reasons stated above. The following table clearly explains the point.

Table VII

SUBJECTS POPULAR OR UNPOPULAR AT U. P. BOARD'S EXAMINATIONS

EXAMINATION	SUBJECT	PERCENTAGE OF STUDENTS GOING IN FOR THE EXAMINATION		
		1968	1969	1970
High School	Biology	15.0%	15.5%	18.0%
	Science	42.0%	39.5%	37.0%
	Commerce	3.5%	3.5%	3.5%
	Agriculture with G. Sc.	7.5%	6.5%	5.2%
Intermediate	Sociology	9.0%	11.3%	16.0%
	Biology	12.0%	12.0%	15.5%
	Physics & Chemistry	37.0%	33.0%	35.0%
	Mathematics	23.0%	20.0%	19%
	Commerce	5.0%	4.0%	3.9%
	Agriculture	3.4%	2.3%	2.0%
Total No. appeared at the H. S. Exam		4 lacs	4.5 lacs	5 lacs
Total No. appeared at the Inter Exam.		2 lacs	2.5 lacs	2.53 lacs

It may be noted here that though Science (Physics, Chemistry) is becoming unpopular at the high school stage, Biology is getting more popular. This means that most of the Science students at the high school stage tend to offer Biology as one of the optionals in the Scientific group. This is exactly the case at the Intermediate stage where Physics, Chemistry, and Mathematics group is becoming unpopular, while Biology with Physics and Chemistry is getting more popular. Similarly, Sociology is attracting more students because of its having better prospects of employment.

Incidentally, it was decided to find out the various avenues of employment known to the students or to their guardians and the importance given to them in order of priority by the former. For this purpose the students concerned were required to answer the following questions at the time of interview :

(1) Which profession is supposed to be the most honourable in society ?

(2) Which profession do you intend to take up in life ? Answers of the students to the questions have been tabulated as below :

Table VIII
PROFESSIONS OF STUDENTS GROUP FIRST PRIORITY AND OPTION

PROFESSION	NO. OF STUDENTS GIVEN THE FIRST PRIORITY	NO. OF STUDENTS OPTING FOR THE PROFESSION
1. Doctors	83	120
2. Teachers	60	27
3. Civil Servants	41	32
4. Agriculturists	21	13
5. Clerks	21	12
6. Military Officers	17	30
7. Politicians	14	6
8. Film Actors	14	8
9. Engineers	14	35
10. Police Officers	11	9
11. Businessmen	11	15
12. Advocates	6	12
13. Scientists	6	8
14. Judges	6	3
15. Mechanics	3	—
16. Menial staff	2	—
Total	330	330

The table above is an index to the minds of the students. It is clear that the preference given to different professions is not objective. It is actually based on what they want to be in life and which in turn depends upon the job prospects. For instance, there are only 14 students who think Engineering to be the most honourable profession, while there are as many as 83 students who consider the medical profession to be the most honourable. This is a situation which could hardly be imagined a few years back. This is equally supported by the answers of the students to the second question—120 students intend to adopt Medical profession, while only 35 intend to have Engineering.

The students belonging to literary group have expressed their desire to become advocates, civil officers, teachers, military officers and film actors in order of priority. Students of the Scientific group have likewise, shown their desire to become doctors, engineers, teachers and military officers in order of priority. Most of the girl students belonging to Literary and Aesthetic Groups have shown their inclination towards the teaching profession. Commerce students have given their preference for business and clerical work, while most of the students belonging to Agriculture Group, have expressed their liking for agriculture and business. This analysis clearly proves that the professions which have greater opportunities of employment for the students have been preferred by them and the professions lacking in such avenues have been ignored.

So far as the subjects bringing high marks are concerned, Sanskrit, Persian, Music, Spinning and Weaving, Sculpture, Commerce, etc., are offered by a good number of students on this account as shown in the table below :

TABLE IX
SUBJECTS BRINGING HIGH MARKS AT THE HIGH SCHOOL EXAMINATION

SUBJECT	TOTAL NO OF STUDENTS IN THE SUBJECT	NO OF STUDENTS OFFERING THE SUBJECT BECAUSE OF ITS HIGH SCORING POSSIBILITIES
Sanskrit	53	44
Persian	4	3
Music (Vocal)	17	10
Music (Instrumental)	16	10
Spinning and Weaving	11	9
Painting	3	2
Sculpture	21	17
Commerce	50	42

It is a matter of common experience that with the same amount of labour pupils score differently in different subjects, not so much because of variation in their interests and abilities for the subjects, but chiefly because of the very nature of the subject bringing high or low marks. It is, therefore, advisable that marks in each subject should be graded separately to assess the student's performance. It is wrong to depend upon the grand total based on the raw scores of different subjects for awarding divisions and merits or to prescribe 33 as the minimum pass marks for each subject irrespective of its nature of bringing high or low marks. If, however, the grand total is a must, statistical operations are needed to convert the marks of different subjects into the marks on a standard scale : Z-scale, T-scale or H-scale. For instance, if the Mean of scores in English and Sanskrit at the High School Examination of U. P. Board is 40 and 60 respectively and Standard Deviation in distributions is respectively 10 and 12, then it is clear that 50 marks in English and 72 marks in Sanskrit are equivalent because both occupy the same percentile rank and on the Z-scale each is equal to one Z-Score. To convert all scores in each subject into standard scores is not a difficult task in the age of computers. Only the educators are required to recognise the importance and validity of this statistical aspect in awarding divisions and merits to the examinees. As for the teacher's good teaching, it appears to be a valid basis for the selection of optionals by the students as is clear from the following table.

TABLE X
SUBJECTS OFFERED BECAUSE OF GOOD TEACHING

SUBJECT	TOTAL NO OFFERING THE SUBJECTS	NO. OF STUDENTS OFFERING SUBJECTS BECAUSE OF GOOD TEACHING Also
Economics	31	20
History	29	14
Civics	24	15
Industrial Chemistry	37	15
Spinning and Weaving	11	8
Sculpture	21	18
Agriculture and General Science	11	8

Good teaching, being an important factor, should be given due appreciation by the authorities and steps taken to employ efficient teachers. In this connection it may be said that the teachers of the subjects noted above have been assessed to be efficient by the Principals concerned.

In this context, a reference may be made to our earlier observation that the advice of the teacher plays a small part in the selection of optionals by the students, although many of the students have indicated the teacher's good teaching as one of the factors in their selection of optionals. What does this contradiction mean? Does it mean that the students are not ready to listen to their teacher's advice due to lack of faith in them, due to their inefficiency or due to their being a non-entity in society? Or, does it mean that the teachers themselves are not interested in or competent for giving advice to students? These aspects deserve serious consideration at the hands of the people concerned.

Conclusion

Thus, it can be summarized that the main causes of selection of optionals by the students at the high school stage in order of importance are as follows :

- (1) Interest in the subject.
- (2) Attraction of employment.
- (3) Achievement in class VIII.
- (4) Guardian's advice.
- (5) Possibility of getting high marks in a subject.
- (6) Teacher's good teaching

The rest of the reasons do not emerge as significant in the present study and, hence, they have not been discussed.

The study has posed certain problems to the researchers and to those who have academic or operational concern with education. It is clear that better opportunities of employment exert greater pressure on the choice of optionals, and interest in the subject is more due to this very factor. Do the schools, then, by and large provide education for children who wish to learn not according to their capacities and interests but for jobs? And if they want to learn for jobs, do the schools provide ample opportunities needed for the same? Should the school education be job-oriented, if so, to what extent? And for how many? And what should be the criteria for taking a decision on this issue? Does the school not create a situation in which children want to get what they are not actually fit for? Or, is it the responsibility

of the society to compel children to learn the minimum ? Then what is the minimum for every child or for all the children ? What about those who are incapable of learning even that minimum ? And above all, what should that minimum be in respect of each subject or discipline ? What is the rationale behind the passes and failures at the public examinations or for the comparative merits and positions of the examinees ? Who is accountable for this wastage—the children for making a wrong choice or the system for compelling a wrong choice ?

These are some of the problems that emerge in the course of this study. Some can, perhaps, find solution through further studies, while others will remain unanswered.

THE IMPACT OF SOCIAL STRATIFICATION ON THE CHOICE OF ELECTIVES AT THE SECONDARY STAGE*

L. K. Oad

Introduction

Any organised social group is always a stratified social body. Some degree of stratification in terms of high, middle and low is a common phenomenon all over the world. This stratification is not on any ideological grounds, but as societies become more complex in nature, stratification of one type or the other becomes inevitable.¹ Sorokin believes that an unstratified society, with real equality of its members is a myth, which has never been realised in the history of mankind.¹ The possibility and desirability of a classless society was experimented in Soviet Russia. After testing it in actual practice, Russia returned to the previously existing conditions.

Hollingshead has propounded the thesis that social class affects many different aspects of the school situation,² one such aspect being the choice of electives at the secondary stage.

* The data for this investigation were collected by M/s V. S. Bhandari, B. L. Jain, U. C. Dubey and Mrs. D. L. Huanandani. The author acknowledges his thanks to them.

1. Peter Murdock, *Social Structure*, New York, Macmillan 1949, p. 88

2. P. A. Sorokin, *Social and Cultural Mobility*, London, Harper & Bros., 1947, pp. 12—13.

3. August B. Hollingshead, *Elmstown's Youth*, New York, John Wiley & Sons, 1947.

Some elective streams have a high social value due to socio-economic considerations. By offering science stream in modern India, one has a chance to go for medical, engineering and other highly paid and sophisticated professions, while humanities lead nowhere (The opposite may be the situation in many European countries, where humanities and social sciences enjoy a higher social status, compared with physical sciences). Many a time, it has been observed that children, coming from the high social class and the middle class, generally offer science streams, while humanities seems to be the lot of the low social strata. Stephenson has very rightly maintained that due to the pressure of a class-oriented value system, our professed ideals of democracy are invalidated.⁴

Thus there is an urgent need to study and understand the situation in a scientific manner, so that suitable measures may be taken to put the ideal of "equality of educational opportunity" into practice. It is difficult to determine the social status of a person, because there are several factors, which cumulatively go to determine the "social class", to which a person belongs. Havighurst⁵ has identified the following factors determining the social status of a person

- (a) Occupation.
- (b) House-type.
- (c) Area lived in
- (d) Source of income.
- (e) Amount of income.
- (f) Amount of education.

One important factor which plays a significant role in determining the social status in India is "caste" which is non-existent in the Western societies. Moreover the distinction drawn between the two factors "occupation" and "source of income" is not so significant in Indian conditions. In the absence of empirical data about Indian conditions, it was decided to conduct a sample survey and collect empirical evidence. On the basis of the survey the following factors were identified :

- (a) Parental education, (b) Parental occupation, (c) Family income, (d) Caste, (e) Locality lived in.

Objectives of the Study

- (1) The main objective of this investigation was to find out the

4 Richard Stephenson, Education and Stratification, *Journal of Educational Sociology*, Vol 25, (September, 1954), p.39.

5 R J Havighurst and B L Neugarten, *Society and Education*, Boston, Allyn and Bacon, Inc, 1954, pp 27-28.

relationship, if any, between the social stratification and the choice of elective streams among the students of secondary classes.

- (2) The ancillary objective was to develop an index of social characteristics which could be used for determining the social class of the pupils under investigation
- (3) It was also aimed to test the following hypothesis - The "social class" to which a pupil belongs, determines the choice of "elective streams offered by him".

Sample

The sample consisted of 525 students of classes IX and X of the secondary and higher secondary schools of Udaipur city and its neighbourhood. An important consideration in the selection of the sample was that it should be a representative sample of various social milieu, commonly found in the vicinity of Udaipur city. Another consideration was that the schools so selected should have provided for two streams - arts and science. The classification of the sample in relation to social milieu is given below -

TABLE I

REPRESENTATIVE SOCIAL MILIEU	NAME OF THE SCHOOL	NO OF STUDENTS		
		Boys	Girls	TOTAL
Urban	Govt. Lambardar Higher Secondary School, Udaipur	135	..	135
Tribal	Govt. M. P Higher Secondary School, Dungarpur	137	...	137
Pilgrim	Govt Hr. Secondary School for Boys, Nathdwara	166	...	166
"	Govt Secondary School for Boys, Kankroli	38	...	38
"	Govt. Secondary School for Girls at Nathdwara & Kankroli	...	49	49
Total		476	49	525

Collection of Data

Three types of data were needed for the study, firstly, students' offerings at the secondary or higher secondary stage, secondly, their socio-economic status in terms of parental income, occupation, caste, education and locality and thirdly, people's preferential placement of the factors of social status referred to above.

Offerings of students included in the sample were noted down from the school records. Regarding the data about the socio-economic status of the parents, whose children composed the sample, a questionnaire-cum-checklist was prepared and sent to the parents through their own children. In order to prepare an index of social status, interview technique was employed.

Determinants of Social Status

Without any empirical evidence, it was not possible to select a criteria for social status, therefore, it was decided to interview some persons, belonging to different strata of the society and collect their opinions on a rating scale of "Factors of Social Status".

In all 110 persons were interviewed. The sample was a heterogeneous one. The interviewee was asked to give value 1 to the factor, which he considered as most significant in determining the social status of a person. The second factor in importance was to be awarded value 2 and in this manner the interviewee could go upto value 10. The first five factors starting from the lowest numerical value to the highest were obtained. The results are given below :

Factors	Value awarded
Education	161
Occupation	274
Income	280
Locality	487
Caste	490

The lowest value indicates first preference and as values go on increasing the preferential placement becomes lower and lower. Surprisingly enough "education" finds the first position in building the social status of a person. It may be added that as many as 20 interviewees were illiterate and belonged to the lowest strata of the society.

Students' Offerings in Relation to Parental Income

Through the questionnaire, the parents were asked to mention their monthly income. When all the data was ready the respondents were classified under five categories in terms of their monthly income.

TABLE II

INCOME GROUP	SYMBOL	DESCRIPTION	TOTAL No
Rs 1000 and above	A	Higher income group	4
Rs. 501 to 999	B	Upper middle income group	10
Rs 251 to 500	C	Lower middle income group	54
Rs 101 to 250	D	Lower income group	212
Rs, 100 and below	E	Lowest income group	245
Total			525

The second step was to match the students offering humanities or sciences in terms of the parental income groups defined above. The results are tabulated in Table III

Observations

The following trends can be seen .

- (1) The majority of children come from the families of lower and the lowest income groups. Only four students come from the higher income group, out of whom all the three boys have offered science stream, while the only girl offered humanities. Since their number is so small that no generalisation is possible.
- (2) There is a downward trend in the percentage of students offering science, as the population moves from high upper middle income group to the lowest income group, and the vice versa in case of students offering "humanities".
- (3) On the basis of the present data, it is found that students belonging to higher and middle income group families have an easier approach to science streams.

Students' Offerings in Relation to Parental Occupation

The data regarding parental occupations was classified under five categories as shown in Table IV ,

TABLE III
STUDENTS' OFFERINGS IN RELATION TO THEIR PARENTAL SOCIO-ECONOMIC STATUS

PARENTAL INCOME	TOTAL NUMBER OF STUDENTS			HUMANITIES			P C OF TOTAL No. OF		SCIENCES		P C OF TOTAL No. OF	
	BOYS	GIRLS	TOTAL	BOYS	GIRLS	TOTAL	STUDENTS	BOYS	GIRLS	TOTAL	STUDENTS	TOTAL
A	3	1	4	—	1	1	25	3	—	3	75	
B	8	2	10	1	1	2	20	7	1	8	80	
C	46	8	54	10	4	14	25.9	36	4	40	74.1	
D	195	17	212	76	16	92	43.4	119	1	120	56.6	
E	235	10	245	142	9	151	61.7	93	1	94	38.3	
Total	487	38	525	229	31	260	—	258	7	265	—	

TABLE IV

OCCUPATIONS	SYMBOL	TOTAL NO
(1) Big businessmen, industrialists, wholesale dealers, stockists etc	A	3
(2) High white-collared jobs, e. g. I A S, state level officers, military officers, doctors, university and college teachers, headmasters of higher secondary schools etc	B	31
(3) Low white-collared jobs and small merchant class e.g. school teachers, clerks, retail shopkeepers etc.	C	283
(4) Agriculturists and dairy keepers	D	89
(5) Skilled and unskilled labourers, e g. carpenters, smiths, drivers, labourers etc.	E	119
Total		525

The students offering humanities and sciences were matched in terms of the occupational groups. Their results are tabulated in Table V.

The following trends can be observed :

- (1) Only three children belong to the highly sophisticated occupational group. Both the boys of this group have offered science stream, while the only girl offered humanities. The number is very small, therefore, it cannot be considered as a part of the whole population.
- (2) The percentage of population, offering science stream shows a downward trend in proportion to the downward gradation of parental occupations and vice versa is the case in respect of humanities stream.
- (3) The majority of children of parents, who are employed in white-collared jobs, have offered science stream, while the majority of children belonging to agriculture community of the labour class have offered humanities.
- (4) It may be inferred that children belonging to A, B, and C occupational groups have opportunities to get better guidance from the parents in the selection of elective streams. Moreover,

TABLE V
STUDENTS' OFFERINGS IN RELATION TO PARENTAL OCCUPATION

PARENTAL OCCUPATION	TOTAL NUMBER OF STUDENTS			HUMANITIES			P C OF TOTAL NO OF STUDENTS		SCIENCES		P C OF TOTAL NO. OF STUDENTS
	Boys		TOTAL	Boys	Girls	TOTAL	STUDENTS	Boys	Girls	TOTAL	
A	2	1	3	—	1	1	33.3	2	—	2	66.7
B	23	8	31	2	5	7	22.5	21	3	24	77.5
C	261	22	283	99	19	118	42.6	162	3	165	57.4
D	89	—	89	57	—	57	64.1	32	—	32	35.9
E	112	7	119	71	6	77	64.8	41	1	42	35.2
Total	487	38	525	229	31	260	—	258	7	265	

parents, employed in these occupational groups, are more conscious about the future social mobility of their children and have high aspirations about their children's future education and career. Therefore, children belonging to these groups are either inspired or persuaded by their parents to offer science stream for a better future. Through interview it was also discovered that these parents have a greater persuasive power and pressurizing influence on the school authorities. Therefore, they can easily manage to get their wards admitted into the science stream in which the seats are limited. On the other hand, the parents belonging to occupational groups, D and E are neither conscious about their wards' future career nor can they exercise pressure on the school authorities for admitting their children in the science stream.

Students' Offering in Relation to Caste

Data about the caste of students could not be collected from one school. The available data about 390 students was classified under five categories given below.

TABLE VI

CASTE GROUP	SYMBOL	DESCRIPTION	TOTAL No
Upper Castes	A	Upper three strata of Hindu hierarchy, viz. Brahmins, Rajputs and Vaishyas	304
Upper Middle	B	Not high by birth, but who enjoy status and power equivalent to those of upper castes due to their high positions or intellectual calibre e. g. Jats, Patels, Khatrias, Non-Hindus such as Muslims, Christians, Sikhs, Parsees etc.	20
Lower Middle	C	Backward castes e. g. , Soni, Lohar, Tamboli etc.	34
Tribals	D	Bhils, Minas etc.	25
Low Castes	E	Scheduled castes, such as Chamars, Bhangies, Doms, Kalals etc.	4
Total :			390

TABLE VII
STUDENTS' OFFERINGS IN RELATION TO CASTE

CASTE* TOTAL NUMBER OF STUDENTS	TOTAL		HUMANITIES		P. C OF TOTAL NO. OF STUDENTS		SCIENCES		P. C OF TOTAL NO. OF STUDENTS		
	BOYS	GIRLS	BOYS	GIRLS	BOYS	GIRLS	BOYS	GIRLS			
A	272	32	304	119	28	147	48 30	153	4	157	51.7
B	17	3	20	6	1	7	35 00	11	2	13	65 00
C	34	3	37	15	2	17	45 95	19	1	20	54 05
D	25	—	25	17	—	17	68.00	8	—	8	32.00
E	4	—	4	3	—	3	75 00	1	—	1	25 00
352	38	390	160	31	191	—	192	7	199		

* Data about caste in one school was not available

The student population offering humanities and science streams was classified on the basis of respective caste groups. The analysis is given in Table VII.

The following trends are observable :

- (1) The overwhelming majority consists of upper class students, but it is apprehended that the data may not be reliable, because there is a tendency among the middle and lower caste groups to associate themselves with the upper class. Therefore, many respondents included under this category must have fallen in categories B, C, D or E. Slightly more than half of the students of the upper castes have offered sciences, while slightly less than half of them have offered humanities.
- (2) From group B to E there is a downward trend of students offering science streams and vice versa in respect of humanities.
- (3) It appears that children belonging to upper and middle caste groups have an easier approach to science stream.

Students' Offerings in Relation to Parental Education

Data regarding parental education was classified under the following five categories shown in Table VIII.

TABLE VIII

LEVEL OF EDUCATION	SYMBOL	TOTAL No
1. The First or the Second degree of the University	A	54
2. Secondary Education	B	120
3. Elementary Education	C	95
4. Literate (Elementary knowledge of 3 R's)	D	167
5. Illiterate	E	89
Total		525

The student population offering humanities and sciences was re-classified on the basis of their parental education. The analysis is tabulated in Table IX.

TABLE IX
STUDENTS' OFFERINGS IN RELATION TO PARENTAL EDUCATION

PARENTAL EDUCATION	TOTAL NUMBER OF STUDENTS			HUMANITIES		P C OF TOTAL No OF STUDENTS		SCIENCES			P C OF TOTAL No OF STUDENTS	
	BOYS	GIRLS	TOTAL	BOYS	GIRLS	TOTAL		BOYS	GIRLS	TOTAL		
A	46	8	54	11	6	17	31.4	35	2	37	68.6	
B	102	18	120	23	15	38	31.6	72	3	82	68.4	
C	91	4	95	39	3	42	44.2	52	1	53	55.8	
D	162	5	167	100	4	104	62.3	62	1	63	37.7	
E	86	3	89	56	3	59	66.3	30	—	30	33.7	
Total	487	38	525	229	31	260		258	7	265		

The following trends are observable :

- (1) The population in terms of parental education is unevenly distributed.
- (2) From group A to E there is a clear downward trend of students offering science stream and vice versa in respect of humanities.
- (3) The higher the level of parents' education, the more their consciousness about their children's future career, which reflects in their children's choice of elective subjects.
- (4) Even the highly educated parents want their daughters to offer humanities and their sons to offer science. In the upper most two groups, as many as 21 out of 25 girls (i. e. 84%) have offered humanities rather than science.

Students' Offerings in Relation to Locality

Data regarding locality lived in was considered in respect of four places only, while it was omitted in case of a very small town, because the whole town was a small locality only. The available data about 438 students was classified under five categories as follows :

TABLE X

LOCALITY	SYMBOL	DESCRIPTION	TOTAL No.
Aristocratic	A	Populated by rich aristocratic classes,	33
Quarters and living home	B	Populated by service class people, generally known as quarters and newly established colonies,	196
Common	C	Populated by common middle class and low class families, generally congested localities,	83
Scattered	D	Houses situated in the farms or on the hills.	96
Slums	E	Congested colonies with one-room houses,	30
Total :			438

The students coming from these colonies were classified in terms of the localities where from they come. The analysis is tabulated in Table XI.

TABLE XI
STUDENTS' OFFERINGS IN RELATION TO LOCALITY

LOCALITY*	TOTAL NUMBER OF STUDENTS			HUMANITIES			P C OF TOTAL NO. OF STUDENTS		SCIENCES			P. C OF TOTAL NO. OF STUDENTS	
	Boys	Girls	TOTAL	Boys	Girls	TOTAL	Boys	Girls	Boys	Girls	TOTAL	Boys	Girls
A	33	—	33	8	—	8	24.2	—	25	—	25	75.8	—
B	196	—	196	84	—	84	42.8	—	112	—	112	57.2	—
C	83	—	83	35	—	35	42.1	—	48	—	48	57.9	—
D	96	—	96	60	—	60	62.5	—	36	—	36	37.5	—
E	30	—	30	22	—	22	73.3	—	8	—	8	26.7	—
Total	438	—	438	209	—	209	—	—	229	—	229	—	—

*Data about pilgrim towns were not significant, hence omitted

The following trends can be seen :

- (1) It is simply surprising that the majority lives in the B class localities
- (2) The student population is unevenly distributed so far as groups of localities are concerned.
- (3) No specific tendency is perceptible.
- (4) It seems that locality is not a determining factor in the choice of electives.

General Conclusions

- (1) The hypothesis that "social classes to which a pupil belongs determines the choice of elective streams offered by him" stands valid. On the basis of the available data, it was found that whatever criterion of social status, whether the income, occupation, caste or parental education, is considered the students belonging to the upper and middle strata of the society have an easier approach to science education in comparison to humanities, while the two lower strata of the society have to remain contented with general type of education included under the humanities group.
- (2) There is a clear downward trend from upper through lower social class in respect of admission to science stream, while vice versa is the case in respect of admission to humanities.
- (3) Locality does not seem to be a significant factor in determining the choice of elective streams at the secondary stage.
- (4) Education is considered the most important factor in determining the social status of a person.
- (5) Income, occupation and education are highly correlative factors in determining the social status. Parents who possess secondary and university education are better placed in the social hierarchy. Their emoluments are more reasonable and jobs more comfortable in comparison to those of the manual workers, whose educational level is low.

The upper class are invariably most conscious about their children's future educational career, and are also in the most favourable position to select the most fruitful elective stream for their children. The children belonging to this class are directly or indirectly encouraged, influenced and pressurized by the family to offer science streams and work hard for future success.

The aspirations of the middle class are being heightened. Although they cannot afford to send their children for future scientific

or technical education, but they are prepared to make sacrifices for the future career of their children. This class has realised most the value of education in facilitating social mobility, therefore the middle class families also desire that their children should be able to offer science stream and work hard, so that they might go for higher scientific or technical education and thereby ultimately help the next generation in the family to move upward in the society. The reference group of this class is the upper class and therefore they subscribe to those values, which are perpetuated by the upper class.

The last two strata of the society are least concerned about their children's education. It is a sheer chance in their case, that some of their children do well in their studies and therefore are able to seek admission in the science stream. Otherwise by and large, they are satisfied with secondary school certificate, irrespective of the elective stream, offered by their children.

Thus on the basis of the data, which is relevant in respect of Udaipur and its environs only, it can be stated that there is a close relationship between social stratification and the choice of electives at the secondary stage.

These findings are supported by similar studies conducted in the west. Vernon C. Pohlmann found that the socio-economic status of a child's family is an important factor in the type of secondary school attended and in pupil's choices between the technical and general high schools.¹

Hollingshead also found that various curricula tend to draw differently from the social classes, with the college preparatory curriculum involving higher status pupils and the general and vocational curricula those of lower status.²

1. Vernon C. Pohlmann, "Relationship between Ability, Socio-economic Status and Choice of Secondary Schools" *The Journal of Educational Sociology*, Vol 29, No 9, May 1956, pp. 292-96.

2. A. B. Hollingshead, *Elmtown's Youth*, New York, John Wiley and Sons, Inc., 1940, p. 462.

BIBLIOGRAPHY

1. Murdock, Peter : *Social Structure*. New York, Macmillan Co., 1949.
2. Young Kimball & Other : *Principles of Sociology*. New York, American Book Co , 1961.
3. Cook, L. A & Cook, E. F. : *A Sociological Approach to Education*. London, McGraw Hill Book Co.
4. Rodhehaver, M. W. & Others : *The Sociology of the School*. New York, T. Y. Cromwell Co., 1967.
5. Max Weber : *Essays in Sociology*. New York, Oxford University Press, 1948.
6. Davis Kings Lay : *Human Society*. New York, Macmillan, 1948
7. Broom, Leonard, Selznick : *Sociology* Illinois, Peterson & Co , 1960.
8. Moore, C. B. & Cole, W. E. : *Sociology in Educational Practice*, Boston, Houghton Mifflin Co., 1969.
9. Nelson, Ramsey & Verner . *Community Structure and Change*. New York, Macmillan, 1960.
- 10 R. J. Havighurst & Others : *Society & Education* Boston, Allyn and Becon, Inc.
11. W. B Brookover . *A Sociology of Education*. New York, Macmillan, 1958.
- ✓12. Ghurye, G. S. : *Caste and Class in India*, Bombay, Popular Book Depot, 1967.
13. Parsons Talcot . *The Social System*. Illinois, The Free Press, 1952.
14. Warner, W. L. and Lunt, R. S. : *The Social Life of a Modern Community*, New Haven, Yale University Press, 1941.
15. Havighurst, R. J. & Neugarten B. L : *Society and Education*. Boston, Allyn & Bacon Inc , 1954
16. Lundberg, G S. : *Foundations of Sociology*, New York, Macmillan Co., 1956.
17. Brown, F. J. : *Educational Sociology*. New York, Prentice Hall, Inc., 1955.
18. Ralph Linton : *The Study of Man*. New York, Appleton Cen. Crafts.
19. Whitney, L. F. . *The Elements of Research*. 1961.
20. Warner, W. L . *Social Class in America*, Chicago, 1949.
21. Hollingshead, A. B : *Elmtown Youth*, Wiley & Sons Inc., 1949.
22. Sorokin, P. A : *Social and Cultural Mobility*, London, Harper & Bros., 1947,

SOCIO-ECONOMIC PRESSURES ON THE CHOICE OF SCHOOL SUBJECTS IN A FEW GIRLS' SCHOOLS OF THE TIRUNELVELI DISTRICT OF TAMIL NADU

Sister Lutgarde Broucke

"Education in India in the immediate future will have to be oriented towards production", resulting in greater prosperity and welfare of the masses. Each pupil, now attending school, should be so guided and directed that he can develop his innate talents to the utmost and at the same time take up optionals or electives leading to jobs or professions most needed in a developing country like ours. Before reaching the goal many social taboos, economic hurdles and vocational prejudices may have to be overcome

As regards the term "socio-economic status", the dictionary merely gives the meaning "state, condition, standing of a person". Green, the sociologist, defines it as "a position in a social group or grouping in relation to other positions held by other individuals in the same group or grouping". In this paper we have used "socio-economic status" in a broad sense so as to include education, profession and economic status of parents. Some environmental accessories are also taken into account. In India social status generally includes educational and professional status. Hence, the term has been taken to mean both education and occupational status.

In the light of the above, I undertook a study, on a very limited scale, of the socio-economic pressures on the pupils' choice of school subjects.

The major objectives of the study were :

- (i) to locate the subject of interest of pupils of the school final class;
- (ii) to know their vocational preference after school leaving;
- (iii) to enquire into the reasons for the pupils' choice of a particular subject,
- (iv) to know the social background of these pupils by collecting information about their caste, parents' occupation and education, and other means of intellectual development at home (newspapers, journals, books),
- (v) to know their economic background by finding out the income of father, mother, family, and the economic status gauged from certain items of basic necessity or of additional comfort available in the home (separate bathroom, radio, car).

The study was conducted in Palayamkottai, a town of about 35,000 inhabitants in the Tirunelveli District of Tamil Nadu and at Tissayanvillai, a big commercial village in the same district. I confined myself to 3 Girls' Schools. School No. I is under the management of the Tirunelveli diocese of the C. S. I., School No. II is managed by temple authorities and School No. III is the girls' section of a co-education school under Catholic management and in a rural area. This fairly gives us a cross-section of families of varied socio-economic backgrounds. The paper covers a total of 143 girls of the school final class of those schools.

A word of explanation about the Secondary School syllabus of Tamil Nadu will be useful here. The syllabus, under the revised pattern of school education for standards X and XI (1966) is divided into 3 groups—*Group A* deals with language—Tamil and English mainly, *Group B* concerns the core subjects—mathematics, science, history, geography; *Group C* has two sections : *Section I* contains the following : algebra and geometry, physics, chemistry, biology, history and languages (Sanskrit, Arabic or Persian); these are called *Electives*; *Section II* has secretarial course, engineering, agriculture, home science, Indian music, drawing and painting. These are called *diversified courses*. Hence under group C twelve possibilities are offered. *Group D* deals with physical education and moral instruction.

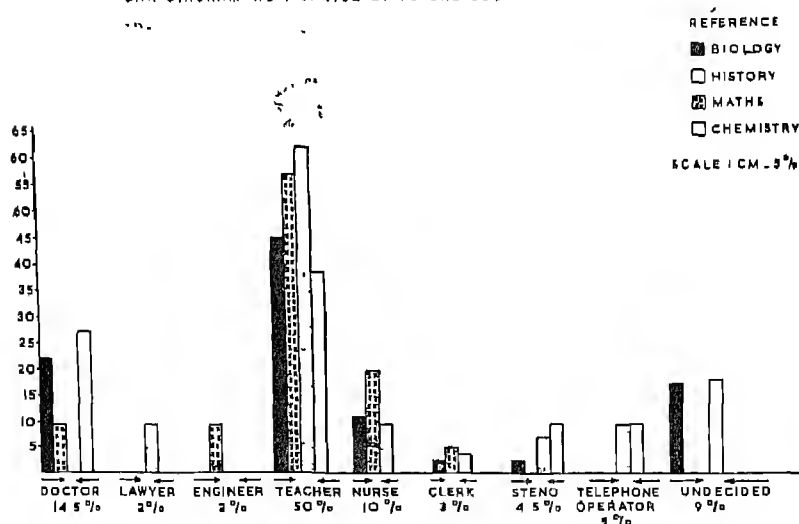
A questionnaire was sent out containing 25 questions (see Annexure). Some of the questions were aimed at identifying the pupils' subject of interest, prospective vocation or occupation and reasons for the choice of that particular elective. Through other

questions we came to know the parents' social status—their caste, occupation, education and some means of intellectual development at home. Again, some of the questions elicited information about the economic status of the family by finding out the family income and the availability or otherwise of certain accessories in the home.

The schools responded well and we got answers from 49 girls in School No. I, 46 in School No. II and 48 from girls in School No. III. This made a total of 143 pupils and families. Because of the limited number I worked with percentages. Of the one hundred pupils in the sample, 36 opted for biology, 11 for chemistry, 21 for mathematics and 32 for history.

Bar diagram No. 1 analyzes the future occupation or profession chosen. We also come to know who has chosen well, who has chosen

BAR DIAGRAM NO 1 CHOICE OF FUTURE JOB



without proper knowledge of the requirements for a particular profession or whose elective has nothing to do with the choice made.

In the Biology group 22% wish to become doctors, 45% teachers and 11% nurses. Their choice of an optional is quite logical. 2.5% plan to become clerks, and 2.5% stenotypists. They might get a better preparation if they had taken Maths (or secretarial courses in other schools). The other 17% are undecided.

As far as the Chemistry group is concerned, 27% opt for doctor, 36% for teacher. The choice is good. But 9.5% want to become typists and another 9.5% telephone-operators; 18% are undecided. These are mostly girls who may discontinue their studies after the S. S. L. C.

As regards the Mathematics group 56·5% are opting for the teaching profession, 9·5% for engineering, 5% for clerical work. The choice made is the correct one. However 9·5% want to be doctors and 19·5% nurses. This optional may not help them much.

In the History group 62% wish to become teachers, 9% lawyers—definitely a good choice, 9·5% intend going for nursing, 3·5% as clerks, 6·5% as typists and 9·5% as telephone-operators.

TABLE I
REASONS FOR CHOOSING OPTIONALS

	TO GO TO COLLEGE OR FOR JOB	I LIKE THE SUBJECT	PARENTS' INFLUENCE	TEACHER'S INFLUENCE
Biology	59	41
Chemistry	18	62	10	10
Mathematics	50	43	7	...
History	17	70	13	...
Total	36	54	7·5	2·5

Table No. I tells us 'why' pupils have taken to particular optionals. A selection of eight reasons was provided in the questionnaire—(i) I like the subject; (ii) My parents wanted me to take it; (iii) My headmistress (teacher) wanted me to take it; (iv) There are no special fees for the course; (v) My brother or sister took the same; (vi) I thought it would be easy; (vii) I need it for college; (viii) I need it to qualify for my future job. We combined the last two and hence 36% say that they need the subject to go to college or for their future job. This is not always true as several had not chosen their optional well; 54% like the subject. But what is most revealing is that only 7·5% admit having been influenced by parents and a mere 2·5% by their headmistress or teacher.

Along with the 'why' for their choice of an elective we also know which parental occupation has influenced the choice of their children and to what extent. This influence is very high in the case of teachers—36% in the case of fathers being teachers and 26% in the case of mothers being teachers. For other occupations this influence seems to be negligible. Of course, we should accept that in this part of the country teaching is still considered as the best profession for a girl.

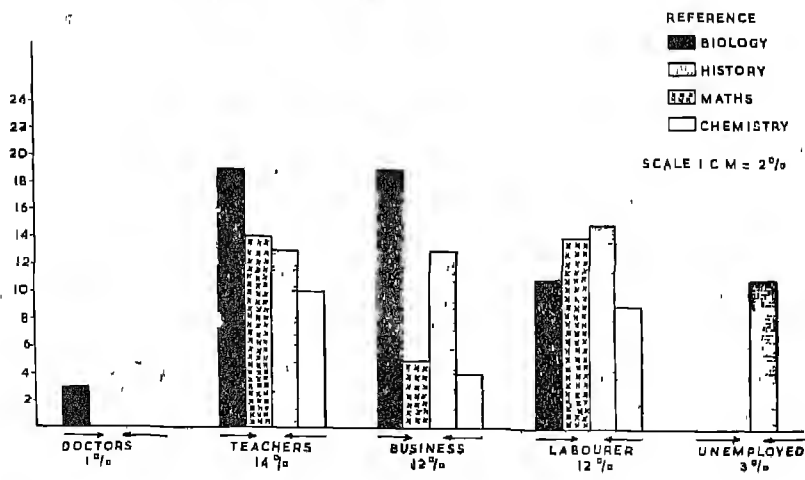
TABLE II
COMMUNITY

	FORWARD	BACKWARD
Biology	67	33
Chemistry	63	37
Mathematics	58	42
History	60	40
Total	62	38

Other questions in the questionnaire were meant for getting information about the parents' *social status*. In *Table II* we see that 62% of the girls belong to educationally forward castes and 38% to backward communities. In the Biology group the division is 67 as against 33, next comes the Chemistry group with 63 against 37, then the History group with 60 and 40 and lastly the Mathematics group with 58 and 42. Although the difference between the groups is slight, the Biology group is again leading with more pupils from educationally forward castes.

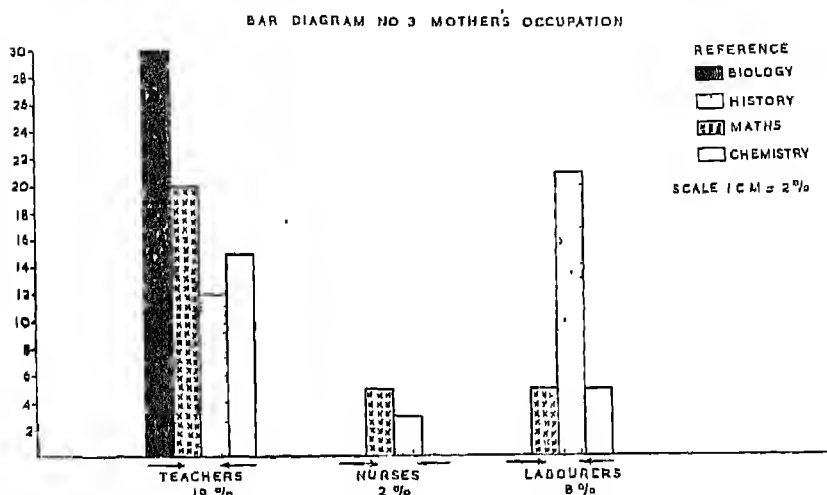
Bar diagram No. 2 gives us the occupation of the father. There is a list of ten different occupations (leaving out the retired, unemployed and deceased). Of the total group 14% are teachers, the next 12% is shared alike by businessmen, farmers and labourers, the 4th rank goes to mechanics—10%, next come government employees with 6%, then drivers with 4% and police constables and doctors each

BAR DIAGRAM NO. 2 FATHER'S OCCUPATION



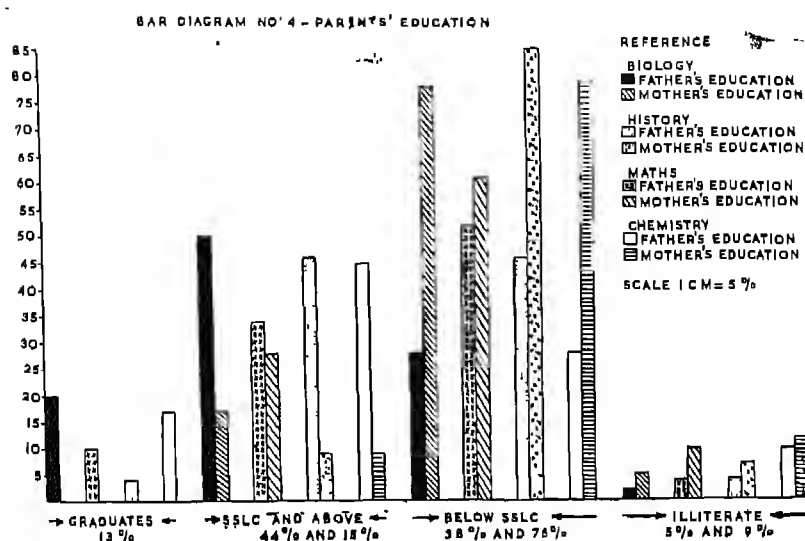
with 1% only. What strikes is that again the few doctors are to be found connected with the Biology group and also the highest % of teachers 19% and businessmen the Chemistry group have fathers who are clerks, 20% of the Maths group have fathers who are farmers and only in the History group do we find unemployed, 11%.

From *bar diagram No 3* we can study the mother's occupation and probable influence in the choice of subjects. The highest percentage of working mothers is connected with the History group but



21% are labourers and only 12% teachers, while in the Biology group all 30% of the working mothers belong to the teaching profession.

Bar diagram No. 4 gives us a glimpse of the standard of the parents' education. In total only 13% of the fathers are graduates and none of the mothers. The highest percentage of graduates is again in the Biology group with 20%, while the Chemistry group follows suit with 17%, the History group has only 4%. The Biology group has also the greatest number with or above the S.S.L.C. standard. Hence the general education of the fathers is S.S.L.C. and above and for the mothers below the S.S.L.C. (57 and 91 respectively).



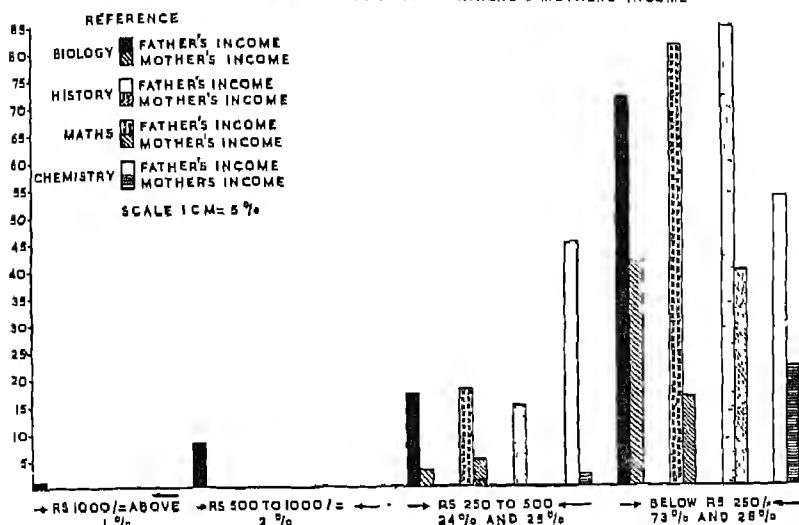
With regard to certain facilities for intellectual improvement there seems to be very little difference between the groups as we can read from *Table No. III*.

TABLE III
FACILITIES FOR INTELLECTUAL IMPROVEMENT

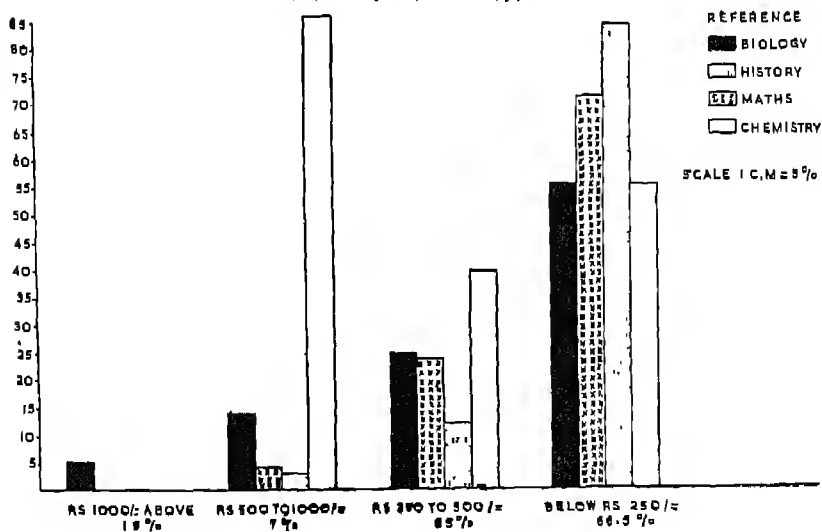
	NEWSPAPERS	JOURNALS	BOOKS
Biology	73	62	98
Chemistry	81	45	90
Mathematics	38	34	58
History	33	39	81
Total	56	45	81

All the above gives us a picture of the social position of the family. We must now consider the *economic position*. Let us throw a glance at *Bar diagrams Nos. 5 and 6*. We see that only in the Biology group do children come from families with income of Rs. 1,000 and above and where the father alone is earning Rs. 500 and above. In the History group 85% of the families have an income below Rs. 250. In that group also most mothers are earning below Rs. 250, they are mainly labourers, as we have already noticed above.

BAR DIAGRAM NO 5 FATHER'S & MOTHER'S INCOME



BAR DIAGRAM NO 6 FAMILY INCOME



Then again there are certain accessories, the possession of which throws light on the economic status of the family. We have mentioned them already. Here also the Biology group seems to be better off--11% possess a car--and the History group less well off. See *Table No IV*.

TABLE IV
ACCESSORIES WHICH SHOW ECONOMIC STATUS

	SUBURBAN BATHROOM	RADIO	CAR
Biology	73	67	11
Chemistry	72	72	...
Mathematics	58	53	5
History	48	45	...
Total	63	59	4

Certain points have now emerged from this study :—

1. Students opting for the Biology group come definitely from families with better socio-economic background, for the following reasons :

- (a) the group has the largest number of pupils belonging to educationally forward communities;
- (b) it has the largest percentage of pupils coming from teachers' and businessmen's families and the small percentage of doctors' children are also found here,
- (c) it has the largest percentage of mothers working as teachers;
- (d) it has better educated fathers; the highest percentage of graduates and S. S. L. C holders;
- (e) it has the lowest percentage of illiterate fathers and mothers;
- (f) it is the only group in which the fathers' income rises above Rs 500 and it has the highest percentage of family income above Rs. 500 also,
- (g) the majority of pupils whose fathers possess a car are also found in this group.

2. Students opting for History come from families with lower socio-economic status, for the following reasons :

- (a) in this group fewer pupils definitely state that they will go for higher studies;
- (b) in this group fewer pupils belong to teachers' families but more fathers are labourers than in any other group and most unemployed also are found here,

- (c) the group has the highest percentage of working mothers but the majority of them are labourers,
- (d) the group has a low percentage of graduates among the fathers,
- (e) the mothers of these particular pupils are less educated, the great majority fall below the S.S.L.C level or are illiterate;
- (f) in this group the income of the fathers falls below Rs. 250 in the majority of cases and only a few earn above Rs. 500. The family income too is lower than in other groups.
- (g) in connection with other accessories also fewer possess a separate bathroom, radio and none a car.

We can now draw the following conclusions from this study :

1. From the choice of electives offered in these three schools and in several more which I have visited for the purpose of this paper, it is quite obvious that the range is not wide enough. The same electives are offered both in the town and in the rural areas. The syllabus of the Tamil Nadu Education Department has a list of twelve as already mentioned in the introduction. Four of these are definitely meant for girls—secretarial course, home science, drawing and painting, music. An interview with some headmistresses revealed the following :

- (a) these are costly courses which require special equipment not now available in many schools,
- (b) there is definitely a dearth of qualified teachers for those courses;
- (c) there is no provision for such subjects in colleges in this district;
- (d) these courses are more expensive as far as special fees are concerned;
- (e) even if introduced these courses would not attract pupils. The experience has been that where the secretarial course and home science have been started and all the equipment made available from government grants, pupils and parents had to be coaxed year after year to take to those subjects. One can imagine what the fate of the other two courses (drawing and painting, and music) would be !

2. Another obvious conclusion regards the choice of an occupation. Here also as is the case with electives, the choice is very limited. Only eight professions are mentioned in the answer papers—doctor, teacher, nurse, typist, telephone operator, clerk, lawyer and engineer. Fifty per cent go in for teaching, 14.5% for doctor and 10% for nursing, the percentage in other jobs is almost negligible. From this

we come to understand first that girls are unaware that other professions for women exist like dress-making, home-decoration, salesmanship, midwifery, social services, health services, guidance services, child-care and many more. Employment exchanges should give information of jobs available at the All-India, State and local level even at that early stage when pupils have to make their first choice of electives. Use could be made of posters, pamphlets, local papers, advertisements in cinema, radio and T. V. and especially talks with A. V. in schools and colleges.

3. Another sign read into this paper is that as far as girls in this part of the country are concerned, teaching is still the most sought after profession. We know that every society has what we call its "belief-value" systems and that this has great impact on the preference shown for certain occupations. This is an example in case. In passing let me mention that the Tirunelveli district has the proud privilege of having started the first Aided Normal School in the State, at Palayamkottai in 1856. Due to this early establishment of training institutions, Tirunelveli has the highest percentage of literacy and more teacher training institutions than any other district in Tamil Nadu, except Madras.

4. From the way pupils have well-chosen or ill-chosen their electives with a view to further studies or later jobs, it is very clear that there is discrepancy. This contradiction must be attributed to poor or no guidance facilities available to students. Guidance at the school level is a 'must' and should be introduced at an early stage and date if we want to avoid much wastage of talents and skills, and frustration too and if we want to make the best of the potential dormant in our girls.

5. Again, most girls at this stage are too young and immature to decide upon the choice of an elective with a view to their later profession. Sometimes this early choice proves to be a handicap or a hindrance rather than a help. Hence care should be taken that students do not decide upon a vocation too early and too hurriedly.

6. Another finding which stresses this lack of guidance facilities is that only in 2.5% of the cases teachers have had direct influence in determining the girls' choice. By talking to teachers I discovered that they are apathetic to guidance programmes, more out of ignorance than for any other motive. Moreover, they find no time and their almost exclusive concern goes to teaching. Guidance should not only lead to the correct choice of an elective but should affect the whole personality—intellectual, personal, social and vocational. Further the Kothari Commission suggests that "guidance should begin from the

lowest class in the primary schools .” A first step in this direction would be the introduction of aptitude and intelligence testing and the maintenance of cumulative records. We give our trainees special instruction but none of the schools in the district is taking advantage of this knowledge. Parents also should take their responsibility in guiding their children’s choice of a suitable elective. Parent-Teacher Associations can do much to prepare the ground by trying to remove from the minds of parents certain pre-conceived notions and prejudices.

7. It still seems to be true that even in the same school with curriculum opportunities being the same, different choices are made by children as influenced by the socio-economic status of their parents. In other words, it seems true that there is still a kind of ‘curricular determinism’ working in our schools and that girls of a lesser socio-economic status may not even aspire at a particular optional. As is evident, parents who are better educated will know the value of science subjects in modern life and their children will be guided—consciously or unconsciously—to take up such subjects. They will also use their influence to get their children’s choice complied with. Again, as observed, the influence of socio-economic status on the achievement of pupils has been considered important by all educationalists. Hence pupils who do better will get a good chance to have the optional of their first choice. And what about the glamour or prestige attached to the study of science since people have come to realise its utilitarian value in modern life. Science subjects lead to prestige-oriented professions like medicine and lecturerships, demonstrators’ posts, etc. . .

Hence in the Biology group more girls have chosen their optional well—89% as against 71% in the History group—according to the occupation they want to take up later. It might be that the environment at home helped the girls to select better. We must mention here in passing that several girls’ colleges in the district, until very recently, offered only zoology and botany. This subject was also required for joining a medical college, or the local training college which also offers only natural science as the main optional, or the M. Sc. in most post-graduate institutions.

Education in a democracy means provision “to enable the right pupils to receive the right education, from the right teachers, at a cost within the means of the state, under conditions which will enable the pupils best to profit by their training.” So it is important to discover what a pupil can do and help him to do it. However, equality of opportunity is not synonymous with identical opportunity. Exceptional children must be treated in exceptional way. Higher

education is not the birthright of everybody. Our aim should be quantitative connotation at the elementary level, diversification at the secondary stage and at the university, quality. For those who do not join a college, an extensive and varied programme of vocations should be offered and made attractive.

Let us throw just a glance at what other Asian countries are struggling with. They seem to have problems of an almost similar kind, connected with the present topic, namely that they are trying to provide equal opportunity for all children. In those countries also just as in India, parents want an academic education leading to a university degree without taking into account their children's aptitudes and talents. Democracy does not mean "putting a University degree within the reach of all." Only a select few with special aptitude for reasoning and deductive thinking should go for higher studies, others should take to other branches of study more suitable for girls according to their several abilities and aptitudes.

In Japan, specialisation begins only at Class XI. Till then a general course of both Science and Humanities is offered to all. The electives then are—agriculture, trade and industry, business, fishery, home-making, foreign languages, advanced maths, science and fine arts. There is opportunity and provision for part-time students even at this stage for those who, due to home circumstances, had to take up a job. There also, pupils of better families seem to be at an advantage. Those who seek admission at College have to pass an entrance examination at which only an average of 35% are successful. The others sometimes spend 2 or 3 years in private study before they can pass. Obviously this falls heavily on students of poorer families. Education is free only till Std. 9 and was, until recently, based very much on rote memory. But recently the Maths and Science syllabi have been revised and are very advanced now.

In Malaysia, the syllabi are so arranged as to leave the teachers ample latitude to choose from them material suited to the capacity of their pupils, in several subjects a choice between a higher and a lower level is offered. As regards optionals, diversification starts already in the 9th Std. or Form 3. There are 12 years of schooling, 6 Standards and 6 Forms. In Form VI there are even 2 classes—lower 6 and upper 6. Upper 6, for the bright who wish to join the University. On the whole there are 4 streams, Arts, Science, Commerce and Domestic Science.

Let me end with a few questions which might help us to think further about the educational problem in our country. "What type of basic education is to be universally adopted as to suit the requirements

of our space age, at the same time catering to the genius of the Indian people, keeping in mind its historical and cultural inheritance?" How should this education further branch out and be diverted in order to meet the needs of the country's industry and the people's means of earning a livelihood? Should the state have the monopoly of education or should all possible agencies be put to work at this task? Should the gifted be segregated and given all possible opportunities for growth and development? Or should education be the same for all? What do you think of setting up special agencies for recruiting teachers so that only the best fitted take to the profession? Do we attach enough importance to the dimension "time"? Is free Secondary Education a universal panacea? Should there be free education at the university level?

And let me close this dissertation with a quotation from Mrs. Indira Gandhi, "Let us not measure the quality of our education by the statistics of pass, failure and wastage, however important these figures may be as official records. The quality of education must be reflected in the quality of life, in its value and grace, in the culture of the social and individual mind and last in our intellectual and technological competence to face and master the problems before us."

REFERENCES

✓ 1. T. Kasturi Rangaswamy and H. Visvesvaran, *The Socio-Economic Status of Students in Some long-established High Schools in Coimbatore before and after Independence*

✓ 2. Krishna Dev Sharma, *Socio-Economic Status of Parents as Determiners of Curricular and Occupational Choices of School Boys*

✓ 3. *The Effects of Socio-Economic Background on the Vocational Interests of Some High School Boys and Girls in Madras City*, M. Ed. Dissertation, Madras University, 1959.

A FEW RELATED STUDIES

✓ *The Effects of Socio-economic Background on the Vocational Interests of some High School Boys and Girls in Madras city. M. Ed. Thesis, 1952.*

The survey was conducted in some Anglo-Indian Schools of Madras City and the following are some of the *conclusions*.

1. There is a distinct influence of the socio-economic status of the boys and girls studying in High School on their vocational interests. The higher the socio-economic status the higher are the aspirations of the boys and girls for educational attainments, vocational interests and professional pursuits.

2. The higher socio-economic status makes available to the boys and girls better amenities such as better living condition, larger room space available, better financial resources and provides the necessary climate among the family members for developing in the children a natural taste for participation in socio-economic and cultural activities.

3. One distinctive feature that may be observed is that while the boys and girls who have scope, move generally with others of their own status, they prefer to associate themselves with others of a higher status than their own as much as possible.

4. There is a close relationship between the vocational interest of the children and the professions they would like to choose.

5. There is also a high degree of correlation between the parents' choice of a career for the children and the children's own choice

Suggestions : It should be the aim of the families who belong to the lower socio-economic status to tend to rise to higher and higher socio-economic level which will in turn develop the vocational and professional interests of boys and girls. It is with this end of raising

the socio-economic status of the people that the government have formulated and put in operation a number of schemes under the five year plans, the ultimate objects of which are for raising the overall as well as the per capita national income, which is in other words, raising the standards of living of the people.

It is the duty of society to provide institutions to mould the child, by enlisting his interests, aptitudes and innate capacities and giving every opportunity by way of occupational information and suitable training to the child needed to develop to its fullest extent.

Vocational Guidance must be tentative such as (a) not to force the advisers' predilection for a particular profession on the candidate (b) to enable the candidate easily to change from one vocation to another if he doesn't find the first choice satisfactory. Vocational Guidance must not lead to job dissatisfaction and make the individual a psychological square-peg-in-a-round hole. It should aim at fitting square pegs in square holes and round pegs in round holes.

It will be of assistance if educational and socio-economic reformers, devote greater attention to number studies, not merely among a larger number of school children but also various other cross-sections of people and gather data which will be useful for formulating policies covering also such aspects as education and socio-economic guidance particularly to those who belong to the lower socio-economic status,

A Study of the Interests of High School Students who have Opted for some of the Diversified Courses, M. Ed. Dissertation, 1956-57

Conclusions

1. While a majority of students of diversified courses like best the chosen courses, 50% of them have a high degree of interest in the courses.

2. About 50% of the diversified groups of students either anticipate or prefer some definite vocations of life, while the remaining do not seem to be quite sure of their future vocations. It is gratifying to note that among the first half, a majority of students have chosen courses that are consistent with their vocational preferences. Some might object that such an early vocational planning is not good, on the ground that students of mean age 15, are not mature enough to chalk out careers on their own. But the experience of other countries has shown 15 is not too early an age for diversification. Besides, the

choice of a course need not bind a person to one vocation, there are a wide variety of possible careers offered by each course. Moreover, early planning would serve as motivation and would allow a longer period of preparation and therefore, the earlier the students determine the goals the longer will the goals serve as motives in daily life. The investigator feels that it is only in the case of the remaining 50% of the students, who are yet undecided about their careers, that proper attention should be bestowed in the form of "guidance and counselling".

While a good number of students indicate their goal is "prospects for a good job", many others pin their faith in parents' advice and still others are inclined to take to parents' occupations. Some of the parents seem to be well-informed and their influence on the choice of diversified courses should have also contributed to the setting up of vocational goals by students.

There seems to be a tendency on the part of diversified students to prefer the vocations of their parents. This is particularly due to the home influence caused by such factors as parents' advice and parents' occupation. All the same, the individual right of the child to choose a course or career for which he is the best fitted and has the most liking, remains there; and if there has been no preference shown to the essential jobs, like those of cooks, plumbers, dhobies, barbers, etc. it only indicates the low social status still attached to these jobs. If careers can elevate man, man can equally elevate careers.

Two of the 7 diversified groups, the Secretarial and the Music-cum-dancing groups are more interested in other courses than in chosen ones. Their interest in the chosen courses is not, however, low or alarming. It is sufficient and considerable. If interests alone were to be criterion, they might perhaps do as well in the chosen courses as in the areas, where their interests seem to be higher.

There seems to be little doubt that the interests of boys could be differentiated from the interests of girls. Differences could be noticed among their vocational preferences also, notwithstanding a certain commonalty of preferences for vocations like those of doctors, teachers, clerks, social workers, etc. Therefore, the general principle of sex-differentiated curriculum appears to be justified.

The need for "guidance" arises in the case of 5% who dislike the chosen courses and desire to change. 45% have low or doubtful interests. Students who opted for Secretarial, Textile Technology and Engineering have expressed aversion to maths which is a necessary tool subject for them, 50% have not decided their careers. Hence

need for "guidance" of a personal, educational and vocational character

Influence of Socio-economic Factors on the Scholastic Achievement of 10th Standard Students of Pathamanthulla Educational District, M. Ed. Thesis, 1962-63.

1, There is no significant relationship between the scholastic achievement of the pupils and the educational status of the families.

2. Pupils coming from families which are neither very high nor very low in educational status secure high achievement scores.

3. The relationship between the economic status of the family and the scholastic achievement of pupils is extremely low and almost negligible. There is no conclusive evidence of either favourable or unfavourable influence of economic status of the family on the scholastic achievement of the pupils.

4. The optimum socio-economic conditions of the middle classes are found more helpful in scholastic achievement and success. The highest group and the lowest group have generally no proportionate balancing on stability in showing any particular rate of progress

6. Occupational status of parents highly accelerates scholastic achievement in pupils.

7 There is no marked difference between boys and girls in scholastic achievement.

8. Facilities of home environment seem to encourage the scholastic achievement of pupils, but not too seriously.

WHO SHOULD MAKE THE VOCATIONAL CHOICE ?

K. G. Desai

Introductory

In the ancient society in India vocational choice was automatically made more or less at the time of birth. A boy born in a carpenter's family had to be a carpenter and a girl born in a barber's family had to be a mid-wife or a maid-servant. This situation changed rapidly after democratic trends made their way in our society. In modern India everyone is free to go into any type of vocation he finds himself best suited for. During the school stage a boy or a girl has therefore to make up his or her mind for a suitable career leading to a group of vocations. Many of our high schools now provide vocational courses during the later stage and the pupils have to make a wise choice of these courses with a view to entering into particular group of vocation ultimately.

Parties in Decision Making

The pupils are in the age group of 13 to 17 years when they have to make the choice of their educational career, if they are in a multi-purpose high school. Others following the academic career can put off their decision by three or four years and make their decision after passing the S. S. C. examination. They also have to select certain courses in the final year so as to be able to go into the arts, commerce or science stream. Thus most of our school pupils have to be conscious of their vocational decisions when they are in the 8th, 9th or the 10th grade.

The choice of a career is made by these pupils either independently or with the help of their parents or teachers. There are at least three parties in the decision making viz., the pupil, his parents and teachers, if we disregard the availability of careers and vocations and social values attached to various vocations

It would be interesting to know the views of each of these parties as to who should make the vocational decision for the pupil or who should help him in this task and to what extent. The views of the three parties would be at variance as expected from the rapidly changing values in our society today.

Plan of Investigation

A short investigation was therefore planned to find out the views of the three. A questionnaire was prepared giving various choices to be tick-marked and was administered to a representative sample of pupils in Ahmedabad city. The five schools selected for the purpose were all multipurpose schools with both academic and vocational biases. The selection was made by the random method taking every third from the list of multipurpose schools in the city. Two divisions of the tenth grade with vocational bias were selected from four schools and one division from the fifth school, as there was no more vocational bias class there. The sample of pupils to whom the questionnaire was administered came to be 340 out of which 216 were pupils who had selected a vocational career and 124 who had selected an academic one. The pupils of the tenth grade were selected for the purpose as they were on the threshold of the S. S. C. class and had therefore to make up their mind shortly for the final selection of their career. Those of them who were in the vocational career had to some extent made up their mind, but they were also at liberty to change it after the S. S. C. examination. All these pupils were, therefore, consciously thinking about the choice of their career or vocation.

The sample of pupils is described in Table 1.

It can be seen from the description of the sample in Table 1 that three schools were coeducational, one was a boys' school and one a girls' school. One school is situated in the rich locality although its pupils are from both middle and rich classes. Two schools cater to the middle class and two to the poor class. Among the last two, one is a boys' and the other a girls' school. Thus the schools selected represent all the classes of the society.

Teachers of these schools were also given this questionnaire. Their sample has been 98. The parents of the pupils were sent the questionnaires through their wards and 243 of them returned it duly filled in,

TABLE 1
SAMPLE OF XTH GRADE PUPILS, THEIR TEACHERS AND PARENTS FOR INVESTIGATION

SCHOOL	PUPILS' VOCATIONAL HAS			FINE ARTS	ACADEMIC CAREER	TOTAL TEACHERS	PARENTS
	TECHNI- CAL	COMMERCE	AGRICUL- TURE				
1. C. N. Vidyalaya	B 42 G 4 T 46	6 0 6	3 0 3	9 14 23	2 4 6	84	71
2. Government Girls' High School	B — G — T —	— — —	— — —	— 5 5	— 58 58	63	49
3. Vinay Mandir Gujarat Vidyapeeth	B 15 G 8 T 23	— — —	— — —	— — —	— — —	23	21
4. Sarasvati Vidyalaya	B 69 G — T 69	— — —	— — —	— — —	10 — 10	79	48
5. Diwan Ballubhai Madhyamik Shala	B 41 G 0 T 41	— — —	— — —	— — —	— 50 50	91	54
TOTAL	B — G — T 179	— — 6	— — 3	— — 28	— — 124	340	243

The responses to the four questions given by pupils, teachers and parents are converted into percentages and arranged in Table 2.

Analysis of Results

TABLE 2
ANALYSIS OF ANSWERS TO "WHO SHOULD MAKE THE CHOICE?"

Who ?	PUPILS WITH		TEACHERS PER CENT	PARENTS PER CENT
	VOCATIONAL BIAS PER CENT	ACADEMIC CAREER PER CENT		
1. Only parents	1	5	1	8
2. Only teachers	0	0	0	0
3. Only pupils	31	34	10	21
4. Parents and teachers	1	1	4	5
5. Pupil, his parents and teachers together	67	60	85	66

About two-thirds of pupils and parents believe that the vocational choice should be made by the pupil, his parents and teachers in consultation with one another, 85% of the teachers also believe so. All the three consistently reject the proposal that the choice be left to the teachers alone. It is significant to note that the parents' sole authority in this regard is also not accepted largely. But almost one-third of the pupils, 10% of teachers and 21% of parents feel that the choice be made by the pupils alone. Parents and teachers without consulting the pupil do not deserve to be vested with this authority as is believed by a large majority of all the three parties. Thus the trend is obviously towards giving more scope to the pupils in this important decision-making activity.

Let us now see whether there is any difference in the views of boys and girls in this regard.

TABLE 3
RESPONSES OF BOYS AND GIRLS TO "WHO SHOULD MAKE THE
VOCATIONAL DECISION"

Who ?	BOYS	GIRLS	TOTAL
	PER CENT	PER CENT	PER CENT
1. Only parents	2	4	3
2. Only pupils	35	27	32
3. Parents and teachers	1	1	1
4. Pupil, parents and teachers	61	68	64

It seems, girls lean a little more towards the participation of the three parties than the boys. In other respects there is not much difference between the responses of boys and girls.

Participation of Parents and Teachers

The second question was aimed at finding out as to what extent the parents and teachers be involved in the decision-making process. The responses to this questions are analysed in the following table.

TABLE 4
ANALYSIS OF "THE EXTENT OF PARTICIPATION OF PARENTS AND
TEACHERS IN DECISION-MAKING"

RESPONSES	OPINIONS OF				
	PUPILS			TEACHERS	PARENTS
	PER CENT			PER CENT	PER CENT
1. Looking to the tender age of the pupils, it is advisable that the decision be taken entirely by.	B	G	T		
(i) Parents	0	0	0	0	6
(ii) Teachers	0	0	0	0	0
(iii) Parents and teachers	1	1	1	1	1
2. The decision is taken by :					
(i) Parents	1	6	3	2	3
(ii) Teachers	0	0	0	0	1
(iii) Parents and teachers	5	6	6	14	13
but they explain it to the pupils					
3. Vocational information be given by :					
(i) Parents	6	13	9	8	8
(ii) Teachers	2	2	2	6	1
(iii) Parents and teachers	47	49	48	59	42
but the decision is left to the pupil					

Here also all the three parties are in agreement not to take the decision without bringing the pupil in the picture. A few of them feel that the decision may be taken by the parents and teachers but it is explained to the pupil, but a large section of all the three parties believe that the role of parents and teachers is to provide vocational information and the decision should be left to the pupil,

Role of the Pupil

The third question aimed at estimating the responsibility of the pupil in decision-making.

TABLE 5
ANALYSIS OF THE RESPONSES TO THE QUESTION RELATING TO
PUPILS' RESPONSIBILITY IN DECISION-MAKING

RESPONSES	PUPILS			TEACHERS	PARENTS
	PER CENT			PER CENT	PER CENT
	B	G	T		
1. The pupil may seek the guidance of parents or teachers, if they want, but the decision is taken by himself	42	47	44	41	30
2. He does not need to take anybody's guidance; he should take his own decision	5	1	3	2	5

The pupils' independence is appreciated by quite a sizable portion of all the three parties, but they feel he may receive the guidance of elders. Very few of them believe that the pupil does not need the guidance of anybody.

Reasons of Answers

The last question mentioned a number of reasons why the respondent gave his particular answer to questions 1 to 3. They were free to mention more than one reason, if they liked. Their analysis is not of much value except that it reveals the views of the three parties, to some extent, in this regard.

TABLE 6
REASONS GIVEN FOR ANSWERS TO QUESTIONS 1 TO 5

REASONS	PUPILS			TEACHERS PER CENT	PARENTS PER CENT
	B	G	T		
1. Tender age and less understanding of pupil	18	13	16	32	24
2. Lack of information about vocations	22	22	22	38	23
3. Parents or teachers appreciate the interest of the pupil	33	34	34	26	30
4. The right of what the pupil should do rests in the hands of parents/teachers	4	12	7	3	13
5. The vocation of the son or daughter should conform to the status of the parents	18	20	19	5	27
6. Parents or teachers can understand the interests of the pupil better than himself	13	18	15	35	28
7. Parents may decide the vocational choice of their sons or daughters keeping in view their economic condition	27	40	32	25	34
8. Teachers have an expert knowledge of the choice of vocations	11	13	12	15	7
9. If all the parties take decision in consultation, it is wiser	46	39	43	40	46
10. Pupils get puzzled in taking decision about their careers	19	11	16	29	18
11. Pupils know their interests and abilities better than others	48	48	48	32	38
12. Pupils are mature enough at this stage to take decision	24	22	23	6	11
13. Pupils should learn how to take their own responsibility	51	47	50	16	45
14. What do others know as to what would suit the pupil ?	35	16	27	6	19

AN ENQUIRY INTO PRESSURES ON CHOICE OF SCHOOL SUBJECTS

M. N. Wali

Introduction

Through education society wants to transmit to new generations of men the significant experiences of the race. These remain congealed in the curriculum, which embodies the universal, as leaving out the particular. In that respect, the scope for choice of subject must needs be very limited, as indeed it was for a long time. "What is universally applicable will justify a prescribed rather than an elective curriculum."¹

As time passed and life became complex, especially in the wake of industrialization, there was a proliferation of subjects to be learnt by pupils. Limitations of time and humans' capacity to learn, need for specialization, and awareness of 'individual differences' necessitated the curriculum to be planned in terms of 'electives'. Pupils choose subjects or subject areas/groups in schools at one stage or another in most countries.

What considerations or pressures influence or determine this choice remains a recurrent subject for educational inquiry. The findings are useful for sound educational planning and reform. When extraneous considerations vitiate the choice of subjects, a number of problems have to be faced. There are square pegs in round holes

and much stagnation and wastage will be imbalances with manpower needs. A number of studies have been made in India as well in other countries of the choice of subjects made by pupils.

Previous Studies

W J. Wilkinson² conducted an inquiry into "the stated preferences of subjects at 'O' level" in two grammar schools in U. K. He found that pupils would choose subjects "Which they enjoy most and at which they consider themselves best". Diwaker Nath³ studied the "Choice of scientific group in the Intermediate classes", and concluded that "professional attractions play a great role" and only some offered the subjects because they were interested in it. In his study into the "Factors influencing the choice of optional subjects in the Boys Higher Secondary Schools of Lucknow" R. K. Singh⁴ found that three most important factors were "opinion of friends", "interest in the subject" and "utility of the subject in practical life". In similar inquiries about girls' choice more or less the same pressures were found to be strong. In Varanasi Ramapati Shukla⁵ made an investigation into the factors influencing the choice of subjects by university students. His analysis showed that students attached more importance to "market value" of the subjects as they moved up the educational ladder and that the parents and teachers advice diminished as a pressure. A study by Dr. D. R. Cook and V. P. Singh⁶ also investigated into the "Order of importance of 16 common factors" influencing the choice of subjects of university students. Interest in the subject, expected "high score" and "help to achieve personal ambition" were found to be the most important considerations.

The Inquiry

The present inquiry was made to study in secondary schools in Varanasi the pressures on choice of school subjects/subject groups, on promotion to class XI. Pupils in high schools in U. P. choose one out of the six subject groups or combinations,

- | | |
|--------------------------|---|
| 1. Pure Science Group | Physics, Chemistry & one more subject.
(Hindi, English, Maths. Compulsory) |
| 2. Commerce Group | History or Geog. or Wood Craft |
| 3. General Science Group | |
| 4. Agriculture Group | |
| 5. Aesthetic Group | |
| 6. Humanities Group | (Science allowed in Varanasi) |

Data were obtained from three questionnaires given to and completed by pupils, parents and teachers. In spite of very great care on the part of the investigator, some of the 'forms' were not completed in all respects. This report is based on the information given on fully completed items.

The Sample

Pupils : 300 (200 boys and 100 girls)
 Age group : 14 to 17 years
 Teachers : 40
 Parents : 66
 Income : 26 up to Rs. 3000 p a , 22 from Rs. 3000 to 6000 p. a. and 18 over Rs. 6000 p. a.

Fifty-eight parents are in service or business and only 21 are non-matric.

TABLE I
 RATING OF PRESSURES BY PUPILS

PRESSURES	1ST	2ND	3RD	TOTAL
1. Interest	221	38	13	272
2. Occupation	48	88	23	159
3. Friend's/relative's advice	2	28	36	66
4. Less expensive	3	12	4	19
5. Pays in examination	12	24	89	175
6. Books etc. available	—	10	14	24
7. Subject teacher	1	3	3	7
8. No other subjects available	3	6	15	24
9. Some choice by brothers/sisters	6	29	80	115
10. Kind and friendly teachers	4	12	23	39
Total :	300	300	300	900

As many as 221 out of 300 pupils have given interest in the subjects as the foremost consideration in their choice. In 48 cases the choice is based on interest of occupation desired, and in 12 cases the subject-group was chosen because it is division making in examination. The next important pressure is to be in line with the choice earlier made by the respondents' brothers/sisters

TABLE 2
PRESSURES AS RATED BY BOYS (200) AND GIRLS (100)

PRESSURES	Boys	Girls
1. Interest in the subject	I	I
2. For the occupation desired	II	III
3. Friends'/relatives' advice	V	VI
4. Less expenses	IX	X
5. Pays in examination	III	II
6. Books etc available	VIII	VIII
7. Pressure from subject teachers	X	IX
8. No other subjects available	VII	VII
9. Same choice by brothers/sisters	IV	V
10. Kind & friendly teachers	VI	V

Boys as well as girls choose subjects because, as they have stated they are interested in them. The girls attach more importance to subjects which pay in the examination, i. e. division making. Boys on the other hand give second place to occupational considerations. The least important factors in both cases are pressure from subject teachers and less expenses. In the school included for the investigation choice is not restricted and the pupils come from not-so-poor families.

Parents

Only 66 questionnaires were returned, and in these too not all the information required was given. Nearly all the parents stated that the pupils made the choice and that they only gave advice. The parents have indicated what considerations they had in mind while advising their sons/daughters.

TABLE III
RATING BY PARENTS OF PRESSURES WHICH INFLUENCED THEIR
ADVICE TO CHILDREN

PRESSURES	RANK
1. Pupil's interest in the subjects	I
2. For the occupation desired	II
3. Friends'/relatives' advice	IV
4. Less expenses	IX
5. Pays in examination	III
6. Books available	XI
7. Teachers' advice	VII
8. No other subjects available	XII
9. Same choice by brothers/sisters	VIII
10. Subject teachers are kind	V
11. Parents' own interest in subjects	VI
12. In line with peers' choice	X

The pressures given by parents are not substantially different from those given by pupils. It may be because choice is made by pupils in consultation with parents and therefore the same kind of pressures weigh with the parents as well as the pupils. This was admitted by some of the parents interviewed.

Teachers

Only 44 teachers completed the questionnaire, and this too partly. The pressures as ranked on the basis of their rating (first three choices combined) are :

TABLE IV

PRESSURES	RANK
1. Made by parents	I
2. Teacher's advice	IV
3. Interest in the subjects	II
4. Easy success in examination	III
5. In line with peers' choice	VI
6. Pressure from subject teachers	X
7. Pays in examination (division making)	V
8. No other subjects available	VIII
9. Reputation of subject teachers	IX
10. Teachers are kind	XIII
11. Books available	XI
12. Less expenses	XII
13. For occupation desired	VII

Teachers have given 7th place only to the pressure 'choice made in the interest of future occupation'. The 1st place is given to 'choice made by parents'. The parents themselves have stated that they gave 'advice' only. But from Table V it is clear that the parents' own interest in subjects plays a not insignificant part

Discussion and Conclusions

It seems clear from the results that pupils' choice of subjects is based on a variety of factors among which the most important on the whole is, 'interest in the subjects'. It may not prove a good basis for choice. Does their performance in the subjects confirm this interest? 'Enjoyment of the subject and a candidate's expected performance in a subject bear little relationship to his actual relative ability in a subject. Thus choice of courses has also to be based on the hard reality of examination successes.'"

The parents' advice to sons and daughters proves much more than advice. Young pupils are likely to offer little opinion to the contrary. Most teachers have in fact stated that the choice is made by parents. Employment value of subjects being one of the strongest factors, and the parents' own interest in certain subjects another, it is most likely that instead of choosing suitable subjects for the pupils, they will be required to adjust themselves to the subjects. The danger is that in these circumstances traditionally glamourized subjects or the ones apparently open sesame to coveted jobs will be big draws.

What consideration is then really important as regards choice of subjects? Perhaps no single consideration is important, pupils' ability and interest and the manpower needs of society both have to be reconciled. Tests devised to measure ability and aptitude are still suspect. In India, especially for a long time because of social and political considerations, choice of subjects may not be allowed to be based on psychological tests as familiar in the West. "The three factors on which selection of children in U. S. S. R. is based may prove suitable :

- (i) abilities and interests already shown in work and school,
- (ii) the needs of local enterprises,
- (iii) personal choice after vocational guidance and interviews with the managers of industries or collective farms".⁸

From this study it appears that the teachers play only a minor role as regards the choice of subjects by pupils, and this too only as 'friends' of the family or 'kind' and 'efficient' teachers. Where there is no proper provision of guidance and counselling by experts, the teachers' advice can be, and should be, very useful. "The more the

educational staff fails to take a hand, the more the children are left to the mercy of the opinion of their parents, the attitudes of fellow students and the popularity of certain instructors".⁹

References

1. Brubacher, J. S., *Modern Philosophies of Education*, McGraw-Hill, 1950, p. 35.
2. *Educational Review*, Institute of Education, University of Birmingham, February 1967, p. 106.
- ✓3. Diwaker Nath, "Factors Influencing the Choice of Scientific Group in the Intermediate Classes" M. Ed. Dissertation, Lucknow University, 1954, (Unpublished).
- ✓4. R. K. Singh, "A Study into Factors Influencing the Choice of Optional Subjects in the Boys' Higher Secondary Schools of Lucknow." M. Ed. Dissertation, Lucknow University, 1961 (Unpublished).
5. *Prajna*, Banaras Hindu University Journal, October, 1962, p. 144.
6. D. R. Cook and V. P. Singh, "Reasons for Choosing Optional Subjects in the University" (Unpublished Report).
7. Wilkinson, op. cit., p. 107
8. King, E. J., *World Perspective in Education*, Methuen, 1962, p. 161.
9. Brubacher, p. 230.

PRESSURES ON CHOICE OF STREAMS IN ENGLISH MEDIUM SCHOOLS OF MEERUT

S. K. Dasgupta

Introduction

From time to time commissions and committees have been appointed in this country to make a thorough examination of the system of education, and recommend measures for its reorganization and improvement. It was also realized to a considerable extent that the proper development of secondary education is one of the most vital aspects of any programme of educational reconstruction. Such a development has a close relationship with the progress of elementary education on the one hand, and that of the higher education on the other. With the completion of each plan period, compulsory education is getting extended to more and more children. The pressures on secondary schools, which have already been severe, are increasing by leaps and bounds in intensity, demanding the adoption of measures to check dilution of standards in secondary education. Efforts have been made to implement the major proposals of the Secondary Education Commission. It may be averred that while some of the reforms undertaken have met with a certain degree of success, progress in other directions has not been encouraging enough, and this necessitates the launching of a dynamic programme for the improvement of the quality of education at the secondary stage.

The National Institute of Education has undertaken to conduct research on a national scale on the pressures on access to secondary education and choice of school subjects, with a view to finding out whether the choice of subjects by the students at the secondary school level is determined by the preferences, frustrations, failures of the parents, and if it is their failures that determine to a great extent, what the child ought to become in life. One of M. Ed. students in the Faculty and Department of Education at Mcerut is studying the problem at the local level. This paper is based on the analysis of a part of the data collected by her, and the main purpose has been to see which variables show their impact on the choice of a stream, with a special eye on the point whether there is pressure from parents forcing children to choose the streams which the parents think are job oriented with a high status.

That the social class which is the result of social stratification, and amongst the strata, each stratum develops norms to govern relationships, and gives them order and stability. In respect of education of children, individuals occupying social positions that give them status and role pursue their actions and policies in terms of the norms, which permeate all social organizations, and constitute the social matrices of social structure. Social classes differ in their convictions about educational needs, they develop convictions about education that undergrid the development of schools. As the educational system evolves, certain convictions become paramount, and they become the criteria by which they judge the character of schools and the use they make of schooling facilities. Parents not only decide in this country whether or not the children will attend school but they also decide what schools their children will attend. While the opportunity to obtain education is equal for all, all our schools do not reach all the way across the population, as economically well-off parents are able to provide such schooling for their children which is not in union with the educational opportunities of the schools for masses. Due to occupational inequalities variations occur which are the result of both differences in the valuation of education and the motivation to achieve it.

Design

For the collection of necessary data a questionnaire received from the NCERT was used. There are three English medium schools in Mcerut. They are located in posh areas of Mcerut Cantonment. Two of these are single sex schools, i. e. one for boys and one for girls, and the third one is co-educational. These schools are private,

and are run by foreign missionaries either somewhat like a convent or on the lines of a so-called public school of the Anglo-Indian brand. In all the three schools at the higher secondary stage only two streams, viz. science and arts exist. Students are prepared for the final examination of the Central Board of Secondary Education. The parents belong to different states and are economically solvent enough to afford a high cost of education as is expected in schooling in such institutions. The questionnaire was administered to all the students of class IX in all the three schools.

At the time of administration the questionnaire was found inadequate in content so pupils were asked to use additional categories and make additions where required. In the general design the study may appear not adequate enough in respect of analyses and pinpointing of variables which effect, but after viewing the questionnaire and the short period at the disposal of the investigator one would tend to ignore this by treating it as a pilot effort. The following layout emerged after the quantitative data were subjected to simple statistical treatment. All the figures in the tables to follow indicate the percentage of pupils under each category.

Social Characteristics

Differences between people made socially significant by our society have arisen out of the variations in men in respect of the attributes discussed below. They may be taken as biological and sub-cultural.

A. Bio-Data

In organising the outstanding factors in the ascription of the social characteristics of the child which make him a member of a certain population group, certain series of factors operating horizontally have been chosen in this study, which are sex, stream, age, religion etc. as provided in the questionnaire.

(a) *Sex* : We all know well that the sex is in many ways the simplest and most universally used of the reference points, and that it is apparent from birth, and remains fixed for life normally, and that our society like other ones prescribes attitudes and roles on sex basis. The age at which the differentiation begins, and the extent to which such differentiation of roles develops is by and large getting deferred in this country.

TABLE I
SEX-WISE DISTRIBUTION OF PUPILS

SEX	PERCENTAGE
Boys	57.6
Girls	42.4

(b) *Subject streams* : In the schools under study only two streams, viz. Arts and Science are provided. Other streams do not exist because of various reasons, and prime among them seems to be non-availability of enough students to warrant the opening of a new stream as many of the other streams do not lead to opportunities for future education or profession in keeping with the status of the parents.

TABLE II
STREAM-WISE DISTRIBUTION OF PUPILS

STREAM	Boys	GIRLS	TOTAL
Arts	13.1	25.0	19.0
Science	86.9	75.0	81.0

(c) *Age* : The age of the pupils is not of much direct relevance in the biological sense, to this study. Nevertheless in the chronological or generational sense it is important for consideration as far as we view it from psychological and sociological angles in view of the age group of the critical nature to which the pupils in the study belong.

TABLE III
AGE-WISE DISTRIBUTION OF PUPILS

AGE GROUP IN YEARS	Boys		Girls		TOTAL
	ARTS	SCIENCE	ARTS	SCIENCE	
12-13	20.0	46.8	15.2	42.4	31.1
14-15	80.0	53.2	84.8	57.6	68.9

(d) *Religion* : We all know well that the religion, sect and caste are very important elements in the Indian social structure and has played a significant part in the allocation of personnel over different occupations. While under the present educational system, legally neither religion nor caste nor the language of an individual is a bar to a person taking up schooling as an education, yet if members of a particular group are to be found in large or small numbers in the tables below, it is not sufficient evidence for assertion that their religion or sect or caste encouraged or discouraged them from schooling, but the reasons for the given distribution have to be found elsewhere.

TABLE IV
RELIGION-WISE DISTRIBUTION OF PUPILS

RELIGION	BOYS		GIRLS		TOTAL
	ARTS	SCIENCE	ARTS	SCIENCE	
Hindus	70.0	72.7	95.0	84.8	79.5
Muslims	0.0	19.7	5.0	6.1	12.1
Christians	30.0	3.0	0.0	6.1	5.3
Parsis	0.0	4.6	0.0	4.0	3.1

B. Family Background

(a) *Family situation* : Sociologists have defined a family situation as a unit of stimuli operating within the confines of the family circle, and organized in relation to the person or object which serves as the focal point in the particular case. We know the structure of a family situation to be composed of the personnel, size, age-relationships, and sex make-up of the family. We also know that the recent changes in the family personnel are : (i) a growing emphasis upon the immediate family rather than upon kinship group family, and (ii) the increasing number of households which include no persons other than the family of procreation. In the table giving the analysis below, the acceptance of this concept of the family can be evidenced.

TABLE V
NUMBER OF BROTHERS OF PUPILS

BROTHERS	BOYS		GIRLS		TOTAL
	ARTS	SCIENCE	ARTS	SCIENCE	
Nil	20.0	33.0	22.0	33.0	30.0
One	60.0	24.0	34.0	30.0	31.0
Two	20.0	17.0	22.0	28.0	20.0
Three	—	—	12.0	9.0	7.0
Four	—	4.0	9.0	—	4.0
Five	—	7.0	—	—	4.0
Six	—	4.0	—	—	2.0
Seven	—	4.0	—	—	2.0

TABLE VI
NUMBER OF SISTERS OF PUPILS

SISTERS	BOYS		GIRLS		TOTAL
	ARTS	SCIENCE	ARTS	SCIENCE	
Nil	10 0	50.0	40 0	40.0	42 0
One	60.0	27 0	12.0	21.0	26.0
Two	30.0	11.0	12.0	9 0	12.0
Three	—	12.0	23 0	18.0	14.0
Four	—	—	4 0	6.0	2.0
Five	—	—	4 0	3 0	2 0
Six	—	—	4.0	3 0	2.0

TABLE VII
RANK OF PUPILS AMONG BROTHERS AND SISTERS

RANK	BOYS		GIRLS		TOTAL
	ARTS	SCIENCE	ARTS	SCIENCE	
First	50.0	39.0	30 0	25.0	36 0
Second	10.0	20 0	42.0	18.0	22.5
Third	20 0	18.0	18.0	19 0	18.7
Fourth	20.0	15 0	10.0	18.0	15.7
Fifth	0.0	7.0	0.0	20 0	6.7

(b) *Family education* : In our situation in the past there were two motivating factors for attaining an education. One of these was the traditional requirement in some castes that children be educated, and the other came from the requirement of an occupation. Those families which had taken to new occupations requiring education would educate their children and prepare them for new occupations. Quite a number of pupils came from such families.

TABLE VIII
THE EDUCATION OF FATHER OF PUPILS

EDUCATION	BOYS		GIRLS		TOTAL
	ARTS	SCIENCE	ARTS	SCIENCE	
Illiterate	0.0	7.6	0.0	3 0	2.6
Primary	0 0	15.2	5 0	6.0	6.5
Matriculate	30.0	6.2	22.0	6 0	16.1
Intermediate	0 0	0.0	13 0	0 0	3.1
Graduate	10.0	28.6	30 0	42.5	27.5
Post-graduate	50.0	42.4	17 0	42.5	38.0
Army Officer	0.0	0.0	22 0	0 0	5.5

TABLE IX
THE EDUCATION OF MOTHER OF PUPILS

EDUCATION	BOYS		GIRLS		TOTAL
	ARTS	SCIENCE	ARTS	SCIENCE	
Illiterate	10.0	22.5	0.0	4.8	9.3
Primary	10.0	7.5	13.0	41.6	18.0
Matriculate	20.0	30.0	4.8	20.7	18.8
Intermediate	20.0	9.5	8.7	10.3	12.1
Graduate	40.0	22.5	8.7	13.0	21.0
Post-graduate	0.0	7.5	23.5	10.3	10.3

TABLE X
THE EDUCATION OF BROTHERS

EDUCATION	BOYS		GIRLS		TOTAL
	ARTS	SCIENCE	ARTS	SCIENCE	
Illiterate	0.0	0.0	0.0	4.8	1.2
Primary	41.2	18.0	27.7	41.5	32.0
Matriculate	41.2	37.5	24.2	21.8	31.2
Intermediate	0.0	0.0	0.0	9.7	2.5
Graduate	11.8	22.5	41.5	12.2	22.0
Post-graduate	5.8	19.5	6.6	10.0	10.5

TABLE XI
THE EDUCATION OF SISTERS

EDUCATION	BOYS		GIRLS		TOTAL
	ARTS	SCIENCE	ARTS	SCIENCE	
Illiterate	0.0	19.5	0.0	2.4	5.5
Primary	20.0	27.5	26.7	30.2	26.0
Matriculate	40.0	15.0	36.7	25.3	29.2
Intermediate	0.0	0.0	0.0	0.0	0.0
Graduate	10.0	22.5	30.0	30.2	23.2
Post-graduate	10.0	15.0	6.7	11.9	10.9

(c) *Family occupation* : We know obviously well that occupations assume many different forms, but less obvious are some of the reasons for the differences. A basic problem in the analysis of data in this study is the lack of a good typology of occupations. Occupational structure as evidenced below seems to be a determinant of the social stratification system.

TABLE XII
OCCUPATION OF FATHERS OF PUPILS

OCCUPATION	BOYS		GIRLS		TOTAL
	ARTS	SCIENCE	ARTS	SCIENCE	
College Teacher	10.0	12.6	4.3	6.6	8.6
Doctor	—	6.3	4.3	13.2	5.9
Mech. Farming	—	7.6	12.9	6.6	6.8
Engineer	10.0	7.6	—	—	4.4
Executive	—	18.3	17.2	9.9	11.3
Business	40.0	15.2	17.2	28.7	25.3
Army Officer	20.0	24.4	43.0	22.1	27.4
Lawyer	20.0	7.6	—	19.8	11.8

TABLE XIII
OCCUPATION OF MOTHERS OF PUPILS

OCCUPATION	BOYS		GIRLS		TOTAL
	ARTS	SCIENCE	ARTS	SCIENCE	
Teacher	10.2	3.2	4.3	—	4.4
Doctor	10.0	—	—	—	2.5

TABLE XIV
OCCUPATION OF BROTHERS OF PUPILS

OCCUPATION	BOYS		GIRLS		TOTAL
	ARTS	SCIENCE	ARTS	SCIENCE	
College Teaching	10.0	3.2	—	—	3.3
Doctor	—	1.5	—	—	0.3
Farming	—	—	8.7	—	2.2
Engineer	10.0	3.2	—	—	3.3
Executive	—	13.6	—	—	3.4
Business	—	4.7	8.7	—	3.3
Army Officer	—	—	—	21.2	5.3
Lawyer	—	1.5	—	—	0.3

TABLE XV
OCCUPATION OF SISTERS OF PUPILS

OCCUPATION	BOYS		GIRLS		TOTAL
	ARTS	SCIENCE	ARTS	SCIENCE	
Teaching	—	6.3	—	6.6	3.3
Doctor	—	3.2	—	3.3	1.6
Army Officer	—	—	3.4	—	0.8

C. Choice of Streams

The interest of parents may be shown by their giving thought to the matter of secondary schooling for their children. The proportion of parents who can claim that they had thought a lot about the matter declines steadily as one moves down the social scale. It suggests that those who care about education, aspire to a professional career for their children. A marked process of choice according to the home-background of children takes place.

(a) *Interest & achievement* : Interest and achievement in a subject are known to be factors which affect the choice of subjects, as lack of achievement and poor achievement do not help one to master the course. The two variables are also known to act as good predictors for future scholastic success. The tables below show that in the matter of selection of streams, in the case of the pupils in this study these factors are not the sole determinants of choice.

TABLE XVI
SUBJECTS LIKED MOST BY PUPILS IN CLASS VIII

SUBJECT	BOYS		GIRLS		TOTAL
	ARTS	SCIENCE	ARTS	SCIENCE	
Science	10.0	46.5	24.0	27.0	27.0
Mathematics	20.0	—	17.0	24.0	15.2
English	40.0	15.0	45.0	15.0	28.7
Hindi	10.0	15.0	—	—	6.2
Sanskrit	—	—	—	—	—
Drawing	—	—	—	—	—
Social Studies	20.0	15.0	8.0	22.0	16.2
Home Science	n.a.	n.a.	8.0	—	2.0
Moral Science	—	8.5	—	3.0	2.5
Music	n.a.	n.a.	8.0	—	2.0
None	—	—	—	10.0	2.5

TABLE XVII
SUBJECTS IN WHICH PUPILS ACHIEVED HIGHEST IN CLASS VIII

SUBJECT	BOYS		GIRLS		TOTAL
	ARTS	SCIENCE	ARTS	SCIENCE	
Science	—	30.5	13.0	18.0	10.7
Mathematics	—	13.5	17.0	34.0	16.1
English	30.0	—	30.0	—	15.0
Hindi	—	3.0	9.0	6.0	4.5
Sanskrit	20.0	12.0	—	28.0	15.0
Drawing	20.0	12.0	—	—	8.0
Social Studies	20.0	9.0	—	6.0	8.7
Home Science	n.a.	n.a.	—	—	—
Moral Science	10.0	—	9.0	—	4.7
Music	n.a.	n.a.	13.0	—	3.2
Craft	—	—	9.0	10.0	4.7

(b) *Decision of choice*. Among the factors known to help and shape a growing child's educational plans are the general economic and cultural environment in which he is reared. These factors begin early to influence his educational progress and expectations. He is encouraged by his family to aspire and achieve

TABLE XVIII
WHO DECIDED THE CHOICE OF STREAM

ATTRIBUTE	BOYS		GIRLS		TOTAL
	ARTS	SCIENCE	ARTS	SCIENCE	
Father	—	22.0	21.0	30.0	19.7
Teachers	10.0	0.0	5.0	12.0	6.7
Brother/Sister	—	—	20.0	15.0	8.7
Friends	10.0	15.0	5.0	10.0	10.0
Own Choice	80.0	42.0	69.0	27.0	54.0

(c) *Reasons for choice* : It is said that by the time a child is twelve years old, the pattern of his future begins to emerge. Children from private schools tend to choose differently from those attending other schools. The difference in orientation is connected with the fact that these children have come from the more privileged social classes. The occupation of the father seems to be a good predictor of whether or not the child will seek higher education.

TABLE XIX
CAUSE FOR CHOICE OF STREAMS BY PUPILS

REASON	BOYS		GIRLS		TOTAL
	ARTS	SCIENCE	ARTS	SCIENCE	
For College	50.0	31.0	26.0	39.0	36.5
Easy to Pass	—	9.0	8.0	9.9	6.8
Better jobs	20.0	33.0	12.0	25.0	22.5
No idea	20.0	9.0	50.0	27.0	26.5
No option	10.0	12.0	—	—	5.5

(d) *Conflict in choice* : This section of the analysis deals with the pupils with the conflict situations, with reference to their choice of streams. Being young the integration of pupils into their parents' culture is not so complete and fixed, and the contacts of the pupils are chiefly with the school and other peer agencies in the culture which is concerned with the world of ideas, attitudes, values, philosophies, and patterns of adult-child relationships.

TABLE XX
THE CONFLICT IN CHOICE OF STREAMS

CONFLICT	BOYS		GIRLS		TOTAL
	ARTS	SCIENCE	ARTS	SCIENCE	
Yes	10.0	39.5	27.6	42.0	29.7
No	90.0	60.5	72.4	58.0	70.3

(e) *Option for change* : When the cultural pressures upon the children differ materially from those exerted upon their elders, being strongest for children in the elements of culture in which they are weakest for elders. What happens as a result of these pressures is that the younger generation grows away from their more conservative and culturally persistent elders, and an eventual rejection follows. This may be apparent to a considerable extent in the table below where pupils have shown they would like to change the stream even now if they had an option.

TABLE XXI
THE DESIRE TO CHANGE

WILL CHANGE	BOYS		GIRLS		TOTAL
	ARTS	SCIENCE	ARTS	SCIENCE	
Yes	60.0	33.5	26.0	34.0	38.4
No	40.0	66.5	74.0	66.0	61.6

Discussion

A quarter century ago an insignificant number of the school-going population had an access to secondary schools, and today a significant number of children of the said age group have an access to secondary schooling. Furthermore, a quarter century hence, when today's parents will have retired, only an insignificant number is likely to remain deprived of it, and hardly any normal child will remain out of school in case of pupils from the social stratum to which the pupils of the schools under study belong.

Sex differentiation is finding no place in the matter of choice either by pupils or by their parents, and the privileged classes seem to be weaning away from classical studies resulting in decorative learning to utilitarian education of the type which helps maintain their social status and prompt further mobility in the upward direction. Even the age distribution shows the eagerness of the parents to make their children complete education at an early age, so as to get ample opportunity to compete for various military and social services of status.

The family background data indicate that the size of the family is shrinking, inspite of the economic solvency of the parents to afford a bigger budget. There seems to be an even distribution in respect of the rank of the child, and the rank of the child does not affect the schooling policy of the parents. No matter what is the rank of the child, the parents are giving equal opportunities to their children. As is expected the background of family education is rich, and is in consonance with the known theories of social change and mobility. Illiteracy of brothers and sisters of pupils is not because of the lack of will on the part of parents, but because they are infants. Family occupations of pupils under study may be labelled as professional class. Those in teaching are in university colleges mostly and those in business are managers, proprietors, and high officials, and those in army and police are officers. Parents engaged in farming are big landlords and barons. Those in the civil services are gazetted personnel or executives. The same trend can be witnessed in the case of the siblings of the pupils. This factor not only makes access of children from this type of homes to the said type of schools not only easy but also a mere matter of routine. Furthermore, it may be accepted here again that this helps at least to maintain the upward mobility of the whole family in their social class.

No affinity between the subject liked most and the subject in which scored highest can be witnessed. The discrepancy may be ascribed to the operation of other factors which are beyond the

control of the pupils, notable amongst them could be facilities in the school and mode of evaluation. Similarly the percentage of those who chose science is far greater than those who like it in the eighth class or achieved highest in it. Higher education and opportunity for prestige positions is the dominant motive behind the choice. Where the father has decided the stream the pupil has no idea why was the choice made, but to us the reasons are apparent. Though the pupils themselves have determined the choice in a very significant number, nevertheless in case of the majority of the rest it is the father who decided the choice of stream.

Since the majority of the pupils were able to make their own choice, only a little more than one-fourth have reported having experienced conflict with regard to the choice, consequently a small number has expressed its desire to opt for a change even now if allowed to do so. Among those who want to change are mostly boys of the arts stream who want to shift to science, and the science stream girls want to change to arts. This trend reflects the realisation on the part of pupils of the greater utility of science in case of boys after professional careers, and better adjustment in humanities of girls, due to the effect of home environment.

Youngsters who have started life in the given social class will not vary much in status they will achieve as adults. Since they will be able to get more education as members of the advantaged class, they will be sponsored to elite status on account of the phenomenon of sponsored mobility playing its role. They come from families, valuing achievement, discipline, and socio-economic success, and have behind them encouragement to do as well as possible, instead of forcing the kind of education upon them which will materialize the dreams of parents which so far did not come true. It may be concluded that the process which has led to the observed results has its locus in the family, rather than the school, and hinges on attitudes rather than aptitude. The possibility exists that educational attainment and adult class status are correlated because of process arising from community and school structures.

REFERENCES

- 1 Anderson, W. A. & Parker, F. B. *Society—Its Organization and Operation.*
- 2 Bossard, J. H. S. & Holl, E. S. *The Sociology of Child Development*
3. Halsey, Floud & Anderson *Education, Economy & Society*
- 4 Hall, R. H. *Occupations & the Social Structure.*

THE CHOICE OF SCHOOL SUBJECTS IN SECONDARY SCHOOLS

S. V. Kher

In the forties students studying in secondary schools had no optionals as all subjects were compulsory. The number of students was also limited and reflected a class-character. There was therefore very little scope for any choice of a school subject. It was mainly an internal choice i. e., within a group of the same genre e. g. Sanskrit or Persian or Ardha Magadhi or Pali under the general heading 'Classical Language'. After the fifties the social composition of students in secondary education changed considerably. The movement initiated in the fifties caught the momentum in the sixties in Maharashtra when the state abolished tuition fees for the wards of parents whose annual income was below Rs 1200/- (Now this limit has been raised to Rs. 2400/- from June 1970). As a result of this concession and the encouraging attitude of the state towards education, the educational facilities have been extended even to the interior rural areas. This has naturally led to an extension of education to secondary level also. In 1970 there were about five thousand secondary schools as compared to about fifteen hundred schools in the fifties in the then Bombay state. Having visualised the import of this expansion and following the recommendations of the Mudaliar Commission, many schools were encouraged to provide multiple courses like Technical, Commerce, Agriculture, Home Science, Fine Arts etc. The State Secondary School Certificate Examination Board also moved with the times and included many more subjects in its studies. Thus, the

S.S.C.E. Board no longer restricted its scope to University subjects alone but included many non-university subjects also. It was essential both from the point of view of catering to individual differences in the students as well as for the varied needs of the employment market.

These two educational reforms namely the establishment of multipurpose schools and the inclusion of several university and non-university subjects at the S. S. C. examination coupled with an ever-increasing enrolment problem were bound to result in various choices of school subjects.

Importance of the Problem

The availability of a whole gamut of choices makes it incumbent upon a student to make a proper selection of subjects. If a proper choice is made, the individual is certain to achieve his best, the schools running the courses and teachers teaching them would both be satisfied with their respective performance. The cost incurred on running various courses would thus fetch commensurate returns to individuals as well as to society in the bargain. Therefore if we know how the choice of subjects is made the headmaster, teachers and parents, etc. would all stand benefitted from this information. Wrong choices would naturally end up in the production of misfits, wastage and stagnation. Therefore, the NCERT, Delhi, has rightly felt the importance of this topic for discussion. The problem is perhaps inherent in the expansion of education and will need a periodic review.

Sample

The present study is restricted to a sample of 10% students from Standards VIII to XI (461) from 9 out of 21 high schools run in the city of Dhulia, a district place in Maharashtra with a population of about 1.25 lakhs. Out of these nine high schools, 7 are multipurpose while two of them are imparting instruction in academic subjects only. One high school for girls out of the three has been chosen. It is a multipurpose school while the remaining two are imparting instruction in academic subjects only.

The Procedure Adopted for the Study

(i) It was decided to have a random sample of 10% of student population from each class of the schools to be chosen. Each class has, normally, about 50 students on its roll. The random numbers drawn

were 1, 15, 26, 33 & 34. These were the roll-numbers, generally arranged according to their registration numbers or alphabetical order. (ii) The opinionnaire enumerating various (20 in all) causes influencing their decision of the choice of subjects was explained and got filled in. They were requested to write any additional causes they felt influenced their choices. (iii) The teachers, teaching standards VIII to XI, were also approached to fill in another opinionnaire enumerating causes (20) influencing students' choice of subjects. They were also requested to give their preferences to the causes. Eighty-four out of 120 responded. They were requested to enlist more causes if they so desired. (iv) Five Headmasters were interviewed with a view to seeking their general opinion about the 'choice of subjects'. The parents' opinion could not be taken into account and this is a limitation of the study.

It would be clear from the procedures adopted that the findings would only be of an exploratory nature and can at best serve as indicators for further studies.

Findings : (a) Students' responses

TABLE No. I

CAUSES	No. of RESPONSES	PERCENTAGE
1. Subject/s is/are easy	386	84
2. Interest in the subject/s	358	78
3. Availability of the subject-teaching	356	78
4. High percentage of marks in the Exam	318	69
5. Reputed subject-teachers	250	55
6. High status of the subject	240	52
7. Parents' wishes	222	49
8. Scope for hobbies	214	47
9. No thought is given in making choice	187	41

The easiness of the subject attracted 84% of the students while 'high scoring in the subject at the examination' attracted 69%. This reflects the 'examination mindedness' of students as well as the allurements of an easy success.

'Interest' ranked second with 78% response and 'scope for hobbies' accounted for 47% only. I am doubtful whether the students really understood the true import of 'interest' as well as of 'hobbies'. They might have thought it to be closely related to 'easiness' of and 'scoring' potential in the subject.

It is worth noting that "teacher's reputation" has found the 5th place with 55% of students opting for it. Parents' wishes have

gained the 7th place with 49% opting for it. This is contrary to the generally held notion that parents decide everything for their children.

'Availability of subject teaching' is mainly an administrative measure. But this has affected the choice of as many as 78% students.

'Status of the Subject' is a social phenomenon. This has influenced the choice of 52 students.

There is also a large percentage (41%) of students who had made their choice arbitrarily or by giving no thought to it.

(b) Teachers responses—The first eight are given below

TABLE II

CAUSE	PREFERENCES					Total	%
	I	II	III	IV	V		
1. Students' Interest	30	6	3	10	2	51	61
2. Students' Achievement in Subject	4	8	6	9	6	33	39
3. Students' ability to study the Subject	6	6	12	4	5	31	37
4. Students' readiness to exert	1	4	9	5	11	30	36
5. Students' Aptitude	8	6	7	3	6	30	36
6. Students' ability to exert	0	5	6	9	6	26	31
7. Useful for employment	6	9	3	3	4	25	30
8. Facility for Teaching the subject in school	0	2	10	7	6	25	30

Students' interest tops the list with 61% of teachers giving it a place in the first five preferences.

Next comes 'achievement' with 39% teachers, choosing it as the second important cause behind the choice of subjects by the students. 6% do not agree with it.

37% of teachers considered 'student's ability to study' as one of the important causes.

36% teachers gave a place to 'readiness to exert' and 'aptitude'.

'Ability to exert' gets the support of 31% of teachers. 25% of teachers have considered 'usefulness for employment' and 'facility for teaching the subjects in the school' as important causes in students making their choice of subjects.

From the above analysis it becomes clear that teachers as a group do not agree about the causes that influence the choice of subjects by students. Only 'interest' gets support of more than 50%.

I think while giving preferences teachers' opinions may perhaps have been influenced by 'what should be' rather than 'what is'.

(c) Interviews with Headmasters were not structured.

The consensus amongst them indicated that (i) students do not make their own choices, (ii) parents make choices for their wards, (iii) facilities in the school influence their choices, and (iv) they are influenced by the S. S. C. results also.

Inferences

The student, the home, the school and the society (especially the employment opportunities) are the agencies that influence the choices of students. Primarily it is the student who would be affected directly by his choices and indirectly the other agencies.

The findings in the study tell us that the 'interest' of the student has a paramount influence on the choice of subjects. This is borne by the fact that 78% of students and 61% of teachers have stated so. But the students' 'ability', 'aptitude' and 'achievement' do not get a prominent place as the influencing factors. However, teachers have considered all these factors and 35% of them have given their place in their order of preferences. The "easiness of the subject" influenced 84% and 'scoring potential in the subject' influenced 69% of the students. This is an indicator of the influence of examinations.

The home which is considered to be playing a very dominant role in the education of children is considered to be an influencing cause in choice-making by only 49% of students but teachers do not rate it as a very important factor. This is surprising because it is generally believed that the parents determine the choice of courses. Headmasters interviewed, also held this opinion. As I have not interviewed the parents I cannot say who are the ones who influence the 'choice' and who remain indifferent toward it.

The other constituents in the family—brothers and sisters and other relatives—indirectly influence the choice-making. Relatives' opinions have influenced 17% of students while the courses taken by brothers or sisters and relatives have influenced 33% of students.

The school is the agency which offers various avenues to the students with different abilities, interests, aptitudes and achievements. The headmasters and teachers are live inputs and the building, equipment etc. are physical inputs. Both these inputs affect the choices of the subjects. Teachers' advice was accepted by 19% of the students and headmasters' advice influenced 11% students. The most important revelation from the data is that as many as 55% of students say that

their choice of subjects is influenced by the reputation of the teachers teaching the subjects. The distance of the school, timings of the school (2%), equipment in the school (23%), availability of the facilities of teaching the subject (78%) have also influenced the choices. From the academic point of view it is surprising to note that infinitesimal number (2%) has sought the help of career-master or guidance counsellor. This might be due to doubts about the utility of these services in the minds of headmasters, teachers and parents. This might also have been due to the inadequate functioning of services in the schools and the students may as well be ignorant about these services.

Society's influence is seen in the 'status of the subject' which is considered as one of the influences by 52% of the students, while only 23% show that their choice is influenced by the parental occupations. Very few maintain that their choice is influenced by employment opportunities and job-requirements. This may be due to the prestige attached to the university courses.

In spite of these findings one wishes a thorough inquiry were made into these various factors influencing the choices so that a regular guidance programme could be chalked out on that basis.

PRESSURES ON THE CHOICE OF SCHOOL SUBJECTS

S P, Gupta

Introduction

It is in the interest of the nation as well as of the individual that school subjects are well chosen. This obviously would reduce a lot of unnecessary expenditure and frittering away of the energies that one may possess. It is all the more important as India has but limited finances and expertise. Therefore, the choices a student makes are crucial both at the beginning of high school education and at its end. In the beginning the student makes subject choices. In the last years of his high school the student makes either institutional choice or vocational choice. This selection proves unwise if it is not based upon an actual understanding of his own potential.

Students must, therefore, be made to select those subjects for which they have a liking. It is a matter of common experience that if students are not interested in their subjects, which they have been compelled to study, the results are very unhappy. So the administrators and educational planners should know the factors that contribute to the choice of school subjects by the students.

Objectives of the Study

1. To find the preferences of girl students towards their school subjects

2. To study the pressures that determine the choice of school subjects by the students.

Sample of the Study

The gamut of factors influencing the choice of school subjects is very extensive and demands very patient work spread over a considerable period of time. The present study, being limited in scope and time, investigates only the pressures influencing the choice of school subjects of girls studying in 8th, 9th and 10th classes. Six hundred girls from four Higher Secondary Schools have been included in the study. The following table shows the distribution of students.

TABLE I
DISTRIBUTION OF STUDENTS INCLUDED IN THE STUDY

NAME OF THE SCHOOL	8TH CLASS	9TH CLASS	10TH CLASS	TOTAL
1. Dev Samaj Girls H. S. School, Ferozepore City	60	45	45	150
2. Hindu Girls H. S. School, Ferozepore City	50	50	50	150
3. D. H. V. Girls H. S. School, Ferozepore Cantt.	50	50	50	150
4. Govt. Girls H. S. School, Ferozepore City	40	55	55	150
Total :	200	200	200	600

The information was collected through a questionnaire.

Related Studies

The high incidence of cancellation or withdrawal indicates unwise choice of school subjects. These cancellations could be caused by other factors, but the unwise choice of school subjects is undoubtedly responsible for a very large proportion of drop outs. The following studies lend support to this view.

1. The first study¹ was conducted to find out the interests of the adolescents. In the questionnaire administered to the students, one question referred to the reasons why the high school students study the several subjects. The findings of the study were that more

1. Pandey R. S., *Our Adolescents . Their Interests and Education*, Agra . Lakshmi Narain Aggarwal, p. 202.

than fifty per cent students of the whole population held these reasons responsible for their choice : (1) The subjects are easy, (2) They could help them in their career, (3) They are interesting to them, (4) These subjects lead to wisdom, (5) Their own culture is inherent in these subjects, (6) Their own religion is inherent in these subjects, (8) The teachers of these subjects in their schools are good, (9) Expressed wish of parents, (10) No other subjects are available in their schools. About forty per cent students have stated that they have offered their subjects because their friends had offered them.

Taking the entire population we see that the following is the order of preference given in the selection of school subjects

1. Adolescents' interest in the subjects.
2. Cultural component of the subject
3. Social approval of the wisdom of the persons well-versed in the subject.
4. Goodness of the subject teachers.
- 5 Expressed wish of the parents
6. Market value of the subject for some job.
7. Easiness of the subject.
8. Inherence of religion in the subject.
9. Non-availability of other subjects in the school
- 10 Imitation of the friend offering the subject.

A few adolescents also mentioned that while selecting their subjects they had kept their marriage prospects also in view.

2. A few American studies have yielded similar results. For instance, a survey by Hewes² indicated that out of a group of students entering Holyoke High School in 1929, 31 per cent withdrew before 1934 because of lack of interest.

3. Gardner³ found that, in Northside High School, Fort Worth, Texas, slightly less than one-half of the pupils reported "dislike of subjects" as a major cause of failure. Courses properly and wisely selected should not be disliked.

4. Adams found that among 2184 pupils in vocational schools and 2555 in non-vocational schools in Kentucky, approximately two-thirds failed in Latin and Mathematics. This high school percentage of failures in specific academic subjects indicates in a convincing manner that a pupil cannot expect to be successful in academic achieve-

2. Hewes, Amy, "Why Pupils leave High School" *School Review*, April, 1935, 43, pp 287-294.

3 Gardner, C. A., "A Study of causes of High School Failures", *School Review*, February, 1937, 35 : p 112.

ments if he obviously must use the 'grab-bag' method in the selection of his academic subjects.⁴

Analysis of the Data

1. First of all students were asked to write down the name of their choice. The following table shows the preference of the students classwise towards subjects :

TABLE II
PREFERENCES OF 8TH, 9TH AND 10TH CLASSES

SUBJECT	CLASSES					
	8TH		9TH		10TH	
	No	%	No.	%	No	%
Arithmetic	40	20	31	15.5	45	22.5
Civics	—	—	2	1	—	—
History	11	5.5	11	5.5	8	4
Hindi	92	46	58	29	64	32
Hygiene	3	1.5	3	1.5	9	4.5
H. H. A.	—	—	16	8	6	3
Mathematics	—	—	7	3.5	5	2.5
Panjabi	20	10	11	5.5	14	7
Physiology	—	—	1	0.5	5	2.5
Sanskrit	1	0.5	9	4.5	3	1.5
Science	29	14.5	45	22.5	34	17
Needle Work	1	0.5	—	—	—	0.5
Home Science	3	1.5	6	3	6	3

The above table shows that students of all the classes included in the study have shown a maximum liking for Hindi. Arithmetic occupies second position for the students of 8th class and 10th class whereas ninth class students have given second position to Science. On the other extreme no student of 8th class has preferred Civics, H. H. A, Mathematics, Physiology. In 9th and 10th classes nobody preferred Needlework and Civics respectively. History, Panjabi and Home Science are favourite subjects of a few students in each class. The subjects of Hygiene and Sanskrit have been preferred by a negligible number of students

4 Admas, Jesse E., "Reactions of High School Pupils to High School Subjects", *School Review*, May, 1927, 35 : pp. 354-362, June 1927, 35 : pp. 417-427

2 It was felt that perhaps the educational background of the father (parents) has some bearing on the selection of school subject

Table III shows that percentage of the students whose fathers had completed the primary education or had no schooling rank highest in giving first preference to Hindi as compared with students whose fathers have qualifications higher than primary. Whereas the percentages of the students whose fathers have qualifications above B. A. ranks lowest in giving first preference to Hindi. It would appear that the higher the qualifications of fathers the lower is the preference given to Hindi. The table further shows that percentage of the students, whose fathers are graduates rank highest in giving preference to Science and the percentage of students whose fathers having qualifications higher than graduate rank it second. The percentage of 'A' group ranks first in the preference of Arithmetic, of 'B' group ranks second, of 'E' group ranks third and of 'C' & 'D' groups rank 4th and 5th respectively. But percentage given to Hindi ranks first in the case of the five groups among all the subjects. Arithmetic ranks second in the case of A, B, C, groups and Science ranks second in the case of D & E groups. In case of 'A' group Panjabi, in the case of B & C Science and in the case of D & E groups Arithmetic ranks third.

TABLE III
EDUCATIONAL BACKGROUND OF THE FATHERS OF STUDENTS

LEVEL OF EDUCATION	SYMBOL	TOTAL
1. Illiterate	A	142
2. Upto Primary	B	216
3. Upto Matric	C	58
4. Upto B. A.	D	116
5. More than B. A	E	66
	Total	600

3. Another factor that has been considered is the economic status of the father. Table V shows the distribution on the basis of economic status.

The students offering different subjects were reclassified on the basis of their parents' income. The analysis is given in Table IV.

TABLE IV
PREFERENCE IN RELATION TO EDUCATIONAL BACKGROUND OF THE FATHERS

SUBJECT	A		B		C		D		E	
	No.	%	No.	%	No.	%	No.	%	No.	%
Arithmetic	33	23	44	20	9	16	18	15.5	12	18
Civics	—	—	1	0.4	—	—	—	—	—	—
History	8	5.8	11	5	4	7	4	3	3	4.5
Hindi	53	37.3	81	37.5	20	34.4	40	34.4	20	28
Hygiene	2	1.4	6	2.7	1	2	4	3	2	3
H. H. A.	3	2.3	10	4.6	2	3	5	4	2	3
Maths.	1	0.7	2	0.9	1	2	6	5	2	3
Punjabi	19	13.4	12	5.5	5	9	6	5	3	4
Physiology	—	—	1	0.4	1	2	1	2	4	6
Sanskrit	3	2.1	3	1.3	3	5	2	2	3	4
Science	18	12.6	40	18.2	7	12	30	26	13	19
Needle Work	—	—	1	0.4	—	—	—	—	1	1.5
Home Science	2	1.4	4	1.8	5	9	2	2	2	3

TABLE V
DISTRIBUTION ON THE BASIS OF ECONOMIC STATUS

INCOME GROUP	SYMBOL	TOTAL No.
Below Rs. 200	A	164
Rs. 200—400	B	236
Rs. 400—600	C	150
Above Rs. 600	D	50
	Total	600

Table VI shows the correlation of subject preference to the economic status of fathers.

We can see that Hindi has been preferred most by girls regardless of the economic status of their parents. So far as Arithmetic is concerned, it is preferred by the girls whose parental income is upto Rs. 400. The girls belonging to higher economic status have not shown much interest in Arithmetic. In the case of Science the trend is reverse—27·6% girls belonging to the 'D' Category i. e. income above Rs. 600/-, 19·3% belonging to "C" Category i. e. between Rs. 400-600, 17% belonging to 'B' Category i. e. Rs. 200-400 and 14·6% belonging to A Category i. e. below 200 have preferred Science. The subjects of Civics, Physiology and Needlework have been preferred by none. Surprisingly, Panjabi is preferred by students belonging to lower income brackets.

4. Out of the several factors responsible for making choices of school subjects a few are given in Table VII.

A careful study of Table VII shows that perhaps there are no scientific bases for the choice of a particular school subject. For instance, 87 per cent of the students have chosen a particular subject because it is easy. It is because such students allow social activities to encroach seriously on their studies. They are busy in social functions connected with extracurricular activities and other school activities that takes away most of their time. Therefore they need subjects which are comparatively easier to study and pass. The factor that a student gets more marks in a given subject made 74 per cent of them to select it. Many students select their subjects in order to get recognition within their peer groups. Courses selected on such an irrational basis must necessarily lead to several complications in later life. Some 74 per cent took a particular subject because a friend

TABLE VI
PREFERENCE IN RELATION TO ECONOMIC STATUS OF FATHERS

SUBJECTS	A		B		C		D		E
	No	%	No	%	No.	%	No	%	
Arithmetic	35	20.8	55	24	20	13.3	7	12	
Civics	—	—	1	0.4	1	0.6	—	—	
History	5	3.6	12	5	9	6	4	7	
Hindi	65	40	76	33.4	55	36.6	18	31	
Hygiene	2	1	7	3	6	4	—	—	
H. H. A	4	2	9	4	7	5	2	3	
Maths.	1	0.6	6	2.6	3	2	2	3	
Punjabi	24	15	9	4	9	6	3	5	
Physiology	—	—	1	0.4	2	1	3	5	
Sanskrit	1	0.6	6	2.6	5	3	1	2	
Science	24	14.6	39	17	29	19.3	16	27.6	
Needle Work	1	0.6	—	—	1	0.6	—	—	
Home Science	3	1.6	7	3	3	2	2	3	

TABLE VII
PERCENTAGE OF PRESSURES INFLUENCING THE CHOICE OF SCHOOL SUBJECTS

FACTORS	SUBJECTS No. of GIRLS :		HINDI (214)		ARITHMETIC (116)		SCIENCE (108)		OTHER SUBJECTS (162)		TOTAL (600)	
	No	%	No.	%	No.	%	No.	%	No	%	No	%
1. My elder brother/ sister reads it	115	54	60	52	55	51	76	48	306	51	306	51
2. Parental pressure	100	47	56	48	48	44	84	52	228	48	228	48
3. Gets help at home	148	69	80	69	86	80	100	62	414	69	414	69
4. My friend has taken it	164	77	80	69	84	78	116	72	444	74	444	74
5. Because it is easy	180	84	100	86	96	89	146	90	522	87	522	87
6. Gets help from the Guidance worker	20	9	25	21.5	20	18.5	55	34	120	20	120	20
7. I get more marks	164	77	90	77.5	70	65	120	74	444	74	444	74
8 Teaching facilities in the school	128	60	84	72	48	44	100	62	360	60	360	60
9. Contact with good and stimulating Teacher	136	73	84	72	84	78	139	85	462	77	462	77
10 Will help in my future	136	63.5	90	77.5	88	81	128	79	444	74	444	74

had also offered the same. The choice of 77 per cent students was on account of coming into contact with good and stimulating teachers. It was reported that only 20 per cent students made their choices on the advice of guidance workers. Some 74 per cent have reported that their subjects will help them in their future career. The analysis of the study shows that if somebody at home knew a subject, it made 69% to choose it, as they thought they could seek assistance from them when needed. Facilities available for a subject in the school made 60% to take it up. Others chose because their elder brother/sister was reading the subject. They were 51% of the population. Some 48% took up the study of a subject under parental pressure

Trends of the Study

1. The most popular subject with the girls is Hindi. Arithmetic and Science occupy the second and third positions respectively. The least liked subjects are Civics, Physiology, Needlework and H. H. A.

2. It has been further noted that economic status and educational background of the parents do have a direct impact on the choices the students make.

3 The study indicates further that scientific basis is lacking in the choice of school subjects. There is need to help students to make wise choice of school subjects, because it affects their whole life. It is therefore essential that students make choices on the basis of real understanding of their own interests and needs. This is something for the educational planner and administrators to learn.

APPENDIX I

QUESTIONNAIRE A

I. Bio-Data

- 1 Your Name
2. Age in years and months
3. (a) Class (b) Stream
4. Father's/Guardian's Name
5. Local Address
- 6 Religion
7. Caste

II. Information about your Family

1. Number of brothers
2. Number of sisters
3. Your own rank among them
(starting from the youngest)
- 4 Education of your family :

	Illiterate	Primary	Matric	Graduate	Post-Graduate and above
Father					
Mother					
Brother					
1					
2					
3					
Sister					
1					
2					
3					

(If you have more than three brothers or sisters, give information about only three having more education).

APPENDIX II

QUESTIONNAIRE B

1. Name :
2. Place
3. Age .
4. Father's name :
5. Mother's name :
6. Caste .
7. Religion .
8. Elective chosen .
9. What does your father do ?
10. Your father's education .
 - Cannot read or write
 - Studied up till 5th std.
 - ” ” 8th std.
 - ” ” S. S. L. C.
 - ” ” B. A., B. Sc., B. E.,
 - ” ” B. T., B. L.,
 - ” ” M. A., M. Sc.,
 - other
11. Your father's income ?
 - Rs. 50 or below
 - Rs. 50 to Rs. 100
 - Rs. 100 to Rs. 150
 - Rs. 150 to Rs. 250
 - Rs. 250 to Rs. 500
 - Rs. 500 to Rs. 1000
 - Rs. 1000 and above.
12. What does your mother do ?
13. Your mother's education :
 - Cannot read or write
 - Studied up till 5th std
 - ” ” 8th std.
 - ” ” S S L. C.
 - ” ” B. A., B Sc., B. E.,
 - ” ” B. T., B L.,
 - ” ” M. A., M. Sc.,
 - ” ” Other.

14. Your mother's income ?

Rs. 50 or below

Rs. 50 to Rs. 100

Rs. 100 to Rs. 150

Rs. 150 to Rs. 250

Rs. 250 to Rs. 500

Rs. 500 to Rs. 1000

Rs. 1000 and above.

15. How many elder brothers and sisters have you ?

16. What are they doing ?

17. How many younger brothers and sisters have you ?

18. What do you like to do ?

Go to the cinema, dance, draw, paint, act, sing, play a musical instrument.

19. What do you plan to do after passing the S. S. L. C. ?

Go to college, get a job, stay at home, get married, other.

20. After finishing school or college, what job do you want to take up ?

21. Are you a hosteler or day-scholar ?

22. Do you study in English medium / Tamil medium ?

23. Why did you choose this elective ?

(i) I like the subject.

(ii) My parents wanted me to take it.

(iii) My headmaster (mistress) wanted me to take it.

(iv) There are no special fees for the course.

(v) My brother or sister took the same.

(vi) I thought it would be easy.

(vii) I need it for college.

(viii) I need it to qualify for my future job.

24. Does your family have a radio ?

A separate bath-room ?

A car ?

25. How many newspapers, magazines are regularly taken in your home ?

How many books are there in your home ?

OUR CONTRIBUTORS

- 1 DR. R. P SINGH Professor and Head of the Department of Education, Mysore University, Mysore.
- 2 DR. L. K. OAD Principal, Banasthali Vidyapith, Banasthali (Rajasthan).
- 3 DR. K. G. DESAI Professor of Education, Gujarat University, Ahmedabad (Gujarat).
- 4 DR. D. D. TEWARI Director, Government Central Pedagogical Institute & Deputy Director of Education (Training) Uttar Pradesh, Allahabad.
- 5 DR. S. K. DASGUPTA Head of the Department of Education, Meerut College, Meerut (Uttar Pradesh).
- 6 DR. R. P. SINGH Reader, Department of Educational Psychology and Foundations of Education, National Council of Educational Research & Training, New Delhi-16.
7. SISTER LUTGARDE BROUCKE Principal, St. Ignatius Training College, Palayamkottai, Tirunelveli-2 (Tamil Nadu).
8. SRI S. V KHER Vice-Principal, College of Education, Dhulia (Maharashtra)
9. DR. (MRS.) N. EZEKIEL Senior Lecturer in Education, Gandhi Vidya Niketan, Bandra, Bombay (Maharashtra).
- 10 SRI M. N. WALI Co-ordinator, Faculty of Education, Banaras Hindu University, Varanasi (Uttar Pradesh).

11. SRI S. P. GUPTA Lecturer, Dev Samaj College of Education for Women, Ferozepur (Punjab).
12. SRI G. N. MATIUR Headmaster, Government Higher Secondary School, Thanagazi, Alwar (Rajasthan).
13. SRI D. C. UPRETI Senior Research Assistant, Department of Educational Psychology and Foundations of Education, NCERT, New Delhi.

